



VOLUME II 4TH EDITION

# LEARNING EXPERIENCE GUIDES FOR NURSING STUDENTS

Anne K. Roe / Mary C. Sherwood / M. Helen Ortega



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MOBILITY



ELIMINATION



REGULATORY



TRANSITION



COMMUNITY



CAREER MOBILITY





**LEARNING EXPERIENCE GUIDES  
FOR NURSING STUDENTS**

**VOLUME II**

**WITHDRAWN - UNL**

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















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


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





















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

















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






















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







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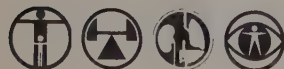



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

















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








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










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# TO THE STUDENT

The LEGS curriculum centers around identified Objectives and planned Learning Experiences based on a *problem-solving approach*. You are continually encouraged to solve patient care problems in your own unique way for individual patients, based on the patient's behavior, your knowledge of the disorder, the medical treatment ordered, and the nursing process. This problem-solving approach carries through the LEGS concept of responsibility and the individuality of the patient and the nurse. There are no stereotypes for the LEGS nurse!

## WHAT'S NEW IN VOLUME II?

### CONTENT ORGANIZATION (CONCEPTUAL FRAMEWORK)

There are nine LEGS in this Volume. Each of them is longer and contains more Objectives and Learning Experiences than the LEGS in Volume I, and therefore may take longer to complete.

There are various ways of organizing the traditional medical-surgical, maternal-child, and psychiatric nursing content. We have chosen to group this nursing knowledge into three basic components of care: **Crisis**, **Regulatory**, and **Body Systems**. These *components of care* represent three ways of viewing a patient's problems: (a) as an emotional **crisis** event in the life of the patient, (b) as a **regulatory** or homeostatic problem, and (c) as an alteration in functioning of a **body system**.

A **crisis** may or may not be recognized as such by the person experiencing it. Many persons have a misconception that a crisis is not a crisis unless it is labeled as such by public consensus. Not so! A crisis involves a loss, whether it be a life, limb, job, or childbirth. A nurse must recognize and understand a crisis event and be able to help his or her patients resolve their turmoil. A healing process must follow the initial shock and disbelief of the crisis event. The **crisis** component will be the major content of the A LEGS in each level, with reference and follow-through in the B and C LEGS.

The **regulatory** functions of the body are essential to life and function as a self-regulating system, with many "backup" systems available in case of emergency. With illness, certain regulatory functions fail (for example, in diabetes mellitus) but medicine and treatment can reverse the pendulum along with patient teaching and care by the nurse. It is frequently the nurse who recognizes the first signs and symptoms of imbalance, and with immediate action, whether it be independent (based on nursing principles) or dependent (in response to a direct medical order), can help the patient regain the equilibrium lost due to the stressors of illness. **Regulatory** problems are introduced in the B LEG of each Level.

At first the **body systems** appear related only in that they all exist in the human

body and are all necessary to life. But more than that, they are interdependent on each other to transmit nutrients and oxygen to the cells. Oxygenation, required by all body cells, could not occur if the lungs could not take in oxygen and give off carbon dioxide; the cells would not grow and multiply without nutrients and fluid prepared for absorption in the gastrointestinal system. Neither of these would have any value without the heart and circulatory system to pump the particles throughout the body. **Body systems** are introduced in LEG C of each Level and related to other *components of care* in the other LEGS.

In actuality, every health problem contains aspects of each of these three viewpoints. For example, a patient having suffered a myocardial infarction presents these challenges to the nurse or nursing student:

**A. Crisis:** What does this illness mean to the patient's life and to his or her family? How does the patient react to it emotionally and how will this affect the recovery period and future life? How can nursing care aid the patient's ability to cope with crisis situations?

**B. Regulatory:** How is the body attempting to correct its imbalance? Does pain force a patient to limit activity and rest? Do blood cells and enzymes attack the damaged heart tissue to repair and replace it? Is nursing care planned to facilitate the body's ability to heal itself?

**C. Body Systems:** How does the anatomy and physiology of the body change with illness? How do the medications and treatments help return the organs to normal functioning? What signs and symptoms can the nurse be alert for that signal dysfunction of some part of the body?

By organizing the nursing content in this fashion, it is hoped that you can more readily identify each *component* with all patients. You must recognize and understand that each *component of care* is equally important in giving good nursing care. As you study the problems of myocardial infarction in LEG VII-C (**body systems**), you will find aspects of the **regulatory** and **crisis** components. As you move to LEG VIII-A (**crisis**), you will be able to relate the aspects of the **regulatory** and **body systems** components to the obstetrical patient's problems.

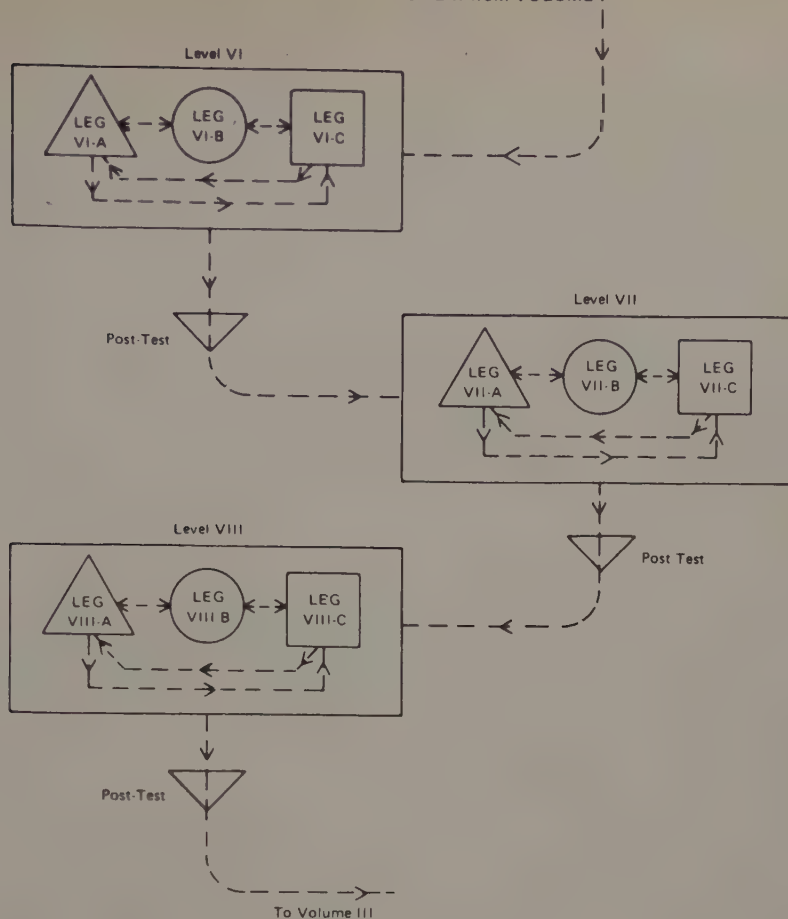
Your instructors will relate your school's individual conceptual framework to this organizational framework.

## FLOW CHART

The Flow Chart for Volume II identifies the placement of content and indicates the relationships of the *components of care*. Note that as in Volume I, each Level must be completed before progressing to the next Level. Whether you begin in LEG A, B, or C is between you and your instructor.



FLOW CHART for LEVELS in VOLUME II from VOLUME I



Descriptions of LEGS Content for Nursing Care of Persons of All Ages:

Volume II

Level Six

- LEG VI-A. Crisis, Grief, and Psychoneurotic Problems
- LEG VI-B. Stress, Adaptation, and Diabetes
- LEG VI-C. Respiratory Problems

Level Seven

- LEG VII-A. Experiencing Surgery
- LEG VII-B. Fluid and Electrolyte Balance During Illness
- LEG VII-C. Cardiac and Hypertensive Problems

Level Eight

- LEG VIII-A. Labor and Delivery
- LEG VIII-B. The Postpartum Period
- LEG VIII-C. Gastrointestinal Problems

What's Ahead in Volumes III and IV:

## Volume III


### Level Nine

- LEG IX-A. Mental Illness and Other Long-Term Problems
- LEG IX-B. Orthopedic Problems
- LEG IX-C. Genitourinary Problems

### Level Ten

- LEG X-A. Problems of Patients with Cancer
- LEG X-B. Blood, Liver, and Immunological Disorders and I.V. Therapy
- LEG X-C. Neurological Problems

### Level Eleven

- LEG XI-A. High-Risk Pregnancy, Childbirth, and Newborn
- LEG XI-B. Genitourinary and Gynecological Problems
- LEG XI-C. Acute Cardiac Care
- LEG  LP/VN Transition to Employment

## Volume IV

### Level Twelve

- LEG XII-A. RN Transition to Employment
- LEG XII-B. Neurosurgical Problems
- LEG XII-C. Acute Surgical Care Including Cardiovascular Surgery


### Level Thirteen

- LEG XIII-A. Emergency and Burn Care
- LEG XIII-B. Acute Pediatric Care
- LEG XIII-C. Acute Medical Care Including Endocrine Problems

### Level Fourteen

- LEG XIV-A. What Do I Need to Know to Graduate?
- LEG XIV-B. Influencing, Regulating and Extending Nursing Practice
- LEG XIV-C. How to Work within the System

## CAREER LADDER MOBILITY (P/VN CURRICULUM)

The Objectives in this volume that are indicated by the ladder symbol  may be omitted from the P/VN curriculum at your instructor's discretion, or they may be reworded for your use.

## CLINICAL PERFORMANCE EXPECTATIONS

As you proceed from Level Six to Level Seven, and from Seven to Eight, you will be expected to have gained an increasing amount of knowledge and skill. Read through all the "Why Should I Study" sections at the beginning of each Level before you actually begin Volume II. The *clinical performance expectations* are stated there for each Level, and will give you an overview of the progress you must strive for as you study the LEGS in that Level. Review each past Level's *clinical performance expectations* before you start each succeeding Level. At first reading you may feel that your clinical focuses are lacking in opportunity to improve upon skills learned in Volume I. We intend for you to identify your own needs for those experiences and combine them with the new focuses in Volume II so that you are giving **total patient care**.

## POSTCONFERENCE

You will not find guidelines for postconferences in Volume II, only a few specific questions or comments when appropriate. You must assume all postconferences follow each day of lab and require your *active* participation. Postconference should be a melting pot of sharing different experiences gained from the variety of laboratory experiences suggested in each LEG of each Level. You must learn from other students vicariously, and they must learn from you.

## NURSING CARE PLAN (NURSING PROCESS)

A nursing care plan and a data base form have been included for your use to help you develop problem-solving skills and to use the nursing process when giving patient care. Sample plans and directions for use are found at the end of this section.

## EXTRA ADDED OBJECTIVES

These are included for your use only if you are ready and have the time, inclination, or opportunity. Some of these Objectives have an asterisk (\*), which means they will be required Objectives at a later Level. Some of the Objectives in this group are included because it may be difficult to find some types of clinical experiences, and you need to take advantage of them whenever available (for example, tracheostomy care). See Objectives 26 and 27 in LEG VI-C. Ask your instructor which ones will be required.

## REFERENCES

You will be reading about patient problems in medical-surgical, pediatric, and psychiatric nursing textbooks. If you choose to buy them now you will be able to use them for Volumes II, III, and IV. We have not listed any of these books by name, but your instructor will choose those that are preferred for your school.

You are frequently asked to write answers in workbooks or study guides. Although we have suggested specific references, your instructors may prefer different ones that will better meet your needs. The workbooks are valuable *when it is difficult to find clinical situations* that provide adequate experience in specific areas of nursing. The workbooks provide vicarious clinical experience and will stimulate you to better use your real clinical situations.

We have referred to the following books frequently:

- Atkinson, Leslie D., and Murray, Mary E., *Understanding the Nursing Process*, 2nd ed., New York, Macmillan, 1983.
- Blondis, Marion N., and Jackson, Barbara E., *Nonverbal Communication with Patients*, 2nd ed., New York, Wiley, 1982.
- Bodinski, Lois H., *The Nurse's Guide to Diet Therapy*, New York, Wiley, 1982.
- Hymovich, Debra P., *Nursing of Children*, 3rd ed., Philadelphia, Saunders, 1982.
- McFarland, Mary B., and Grant, Marcia M., *Nursing Implications of Laboratory Tests*, New York, Wiley, 1982.
- Robinson, Corinne H., Lawler, Marilyn R., and Garwick, Ann E., *Case Studies in Clinical Nutrition*, 2nd ed., New York, Macmillan, 1982.
- Smith, Sandra F., and Duell, Donna, *Nursing Skills and Evaluation: A Nursing Process Approach*, St. Louis, Mosby, 1982.





When beginning a LEG, spend about 10 to 15 minutes reading the "What" page and all of the Objectives. Notice the subjects of the write-in experiences and the group discussions. Then look at the Overview sheet. Use it to help you plan your week. Which Objectives must you study before attending each group discussion, each clinical lab, and so forth? When you can begin to visualize the work involved, write out your plan for the next few days. Set realistic goals for library time and fill in the dates when each group of Objectives will be completed.

Then, begin using the audiovisual materials and readings for the first group of Objectives. Limit yourself to two or three different readings if possible. You do not have to answer every write-in question immediately. Look ahead to see if your articles and audiovisuals will help you with later Objectives. If convenient, work with one or two other students. Read different articles and share answers; time is saved and critical thinking is improved! Ask others to explain answers that are not clear. This will train you to read more carefully and to question what you read. Tell each other of outstanding articles that should not be missed. Purchase as many of the reprints of articles as there are available at your school. These are good references that are inexpensive and that will be useful later. They all also save you library time.

### GROUP DISCUSSIONS

Group Discussions are very effective for learning. In order to both get from and give the most to a group discussion, you must come prepared. Preparation includes:

1. Finding out what group members should do. (See LEG; check with instructor.)
2. Finding out why the group is meeting. (Read Objectives.)
3. Signing up for a particular group. This may include indicating what you will do to prepare for the meeting. (See sign-up sheet.)
4. Attending the group, then evaluating how it went: that is, the degree of success or failure to accomplish the task, and how you feel about your own performance and that of other group members.

Group discussions can be used for many purposes:

1. *Sharing information.* Sharing minimizes the time spent by an individual in studying the material and maximizes what you can learn in a limited time.
2. *Problem solving.* Input from several prepared persons is usually very effective in leading to decisions and actions to improve a problem situation. This is frequently the purpose of group meetings between members of the nursing staff.
3. *Oral testing.* A quick way to find out what you know and what you still need to learn. A tension charged situation, but a very good way to stimulate group members to be quick with challenges and defenses of their actions and those of their peers.
4. *Venting feelings.* Have you ever done this in an impromptu way after an emotionally charged clinical experience? The first few minutes of postconference sometimes serve this function. Venting feelings can make you feel better; realize that

others have similar or very different feelings; clear the way for problem solving and changes that may make a situation better.

5. *Brainstorming.* Throw out ideas. Consider a subject from as many angles as there are group members. Come up with ideas of how to approach a problem or activity. "Two heads are better than. . . ."

Think about group work. It is not fast. It involves compromise. How do you feel about groups versus individual—studying, working, and playing? Sometimes a decision must be made and an action taken without waiting for the group process. Later the group process may modify, change, or uphold the decision. You may compare group work to a democracy versus a dictatorship; cumbersome, but worthwhile for the good of each individual.

Think about group discussions as they are now. Are you taking an active role in both preparing for, and participating in, at least one a week? Are you satisfied with your own efforts? The efforts of other group members? Is it time well spent? Or wasted? You can make groups effective. But you will need to work at it.

## REVIEW "HOW DO I USE A LEG AND MY INSTRUCTOR"

More will be expected of you this term. In order to help you perfect your learning skills, review the Introduction to Volume I. Find out what you missed as a beginning student and get ideas for use in Volume II.

**Test Yourself:** See if you can answer these questions. If not, reread the appropriate paragraph.

1. Where are the clinical performance expectations found in the LEG?
2. Why are the clinical expectations included?
3. What are three components of care that direct the content into A, B, and C LEGS?
4. How many LEGS are included in this Volume?
5. What should you do when beginning a LEG?
6. How do you use your instructor?
7. What does NCP stand for? Where is it found?
8. How do you prepare for a group discussion?
9. How can you reduce the time spent in the library?
10. What can the Overview page do for you? Where is it found?

## REVIEW "HOW TO USE THE STEPS OF THE NURSING PROCESS TO WRITE A NURSING CARE PLAN"

### *Nursing Process*

Step 1—Assessment

Step 2—Analysis

### *Nursing Care Plan*

Complete *Data Base Form*

Write a *Nursing Diagnosis* for each problem: (PES)

P: Problem

E: Etiology

S: Signs and symptoms

### Step 3—Planning

#### Rank *Nursing Diagnosis*

Decide upon *Goals* or *Outcome Criteria*

Write *Nursing Interventions* to meet goals

Explain *Rationale for Interventions*

### Step 4—Implementation

Use your plan with your patient

### Step 5—Evaluation

*Evaluate* whether your goals have been met or not

During Volume I, you have been learning about nursing process—a way of thinking and a way of caring for patients. Although you may not yet understand it completely or see what difference it can make in giving care, you will find as you study about patients in Volume II that it suddenly makes sense and is useful. If you do not feel totally familiar with all of the steps of the nursing process, review them now. Review the total process one more time before you use it in Level Six.

In order to meet the needs of patients, nursing must be problem oriented. The needs of individuals and groups change, and nursing care and nurse relationships vary. The nursing process must also be applicable in a variety of settings and with a variety of patients. Students need to learn to think critically and to be able to organize their knowledge in such a way that it can be used to plan patient care and make decisions.

The nursing process includes the problem-solving skills of assessment, analysis, planning, implementation, and evaluation to provide care according to the needs of individuals and groups of patients and their families. It gives organization and direction to the various and distinct elements of nursing practice. *It focuses the nurse's thinking on the individual rather than on the tasks* involved in his or her care. Thus, patients' needs are more thoroughly assessed and more effective plans can be made to meet the needs.

Decision making in nursing involves anticipation of a variety of consequences arising from any nursing intervention and individual acceptance of accountability and responsibility for nursing actions. Nursing within this framework of problem solving and decision making uses technical, communication, teaching, and leadership skills for patient care.

### Step 1—Assessment

When illness occurs there are threats to one or more basic needs, producing consequences that are beyond the individual's ability to cope. The nurse must look at the total person and make judgments regarding the satisfaction of or threats to each basic need.

Assessment is the systematic collection and appraisal of data about an individual, the family, or the community leading to problem identification and a nursing diagnosis that is used to give nursing care.

It begins with the collection of data. Methods of data collection include observation and physical assessment ("observing" and "looking"), interviewing, and history taking ("listening" and "questioning").

Data may be either objective or subjective.

Patients are the primary resource for information. If they are reliable historians, they can best tell you what their current health status is, what are their needs and problems, and what their goals are.

The information given you by a patient can be confirmed by secondary resources that include the patient's family, the doctor, and other health team members, a data base, the patient's record, your own knowledge, your instructors, and books and journals.



There are two phases of assessment. The first is the initial assessment and includes an interview and an examination. It provides a baseline by which to measure change. The second phase is an ongoing (continuous) assessment that gives current information. The time required for assessment depends on the amount of information to be collected, and probably on how many previous assessments have been performed. The nurse should use every opportunity to make accurate, complete observations of symptoms without unduly inconveniencing the patient.

The nursing student should also remember that he or she brings previous knowledge to this process and that it is useful.

Normal psychology will help you evaluate behavior, emotion, and intellect, perceptions of self, and problem-solving abilities. Normal developmental stages help identify factors that hinder or promote progression through these stages. Willingness to participate in nursing process will help you to find ways to use your knowledge.

## Step 2—Analysis

Do you know what analysis means? The dictionary describes it as “to separate into its parts.” It is a mental activity that is both hard to teach and hard to learn. The best way to learn is to think out loud with an experienced person (your instructor). Learn how to evaluate information, keep what is valuable, discard what is irrelevant, see the relationships, and arrive at a conclusion, a nursing diagnosis.

The following conversation between an instructor and a student illustrates the steps of analysis:

S: Well, he's having a hard time breathing.

I: O.K., that's the problem. He's having a hard time breathing. How do you want to say it?

S: Short of breath?

Dyspnea?

Inadequate ventilation?

I: Do you know why he's having a hard time breathing?

S: Because he has pneumonia.

I: What made you think he was short of breath?

S: He was using his accessory muscles of the neck, respirations were 30 and he was sitting straight up in bed.

I: You have probably stated the problem correctly and have an accurate diagnosis: shortness of breath, related to pneumonia, manifested by R-30, use of accessory muscles, sitting up to breathe.

*Analysis requires that you ask yourself the following questions: (1) Do I have enough of the right kind of data? (2) Are the facts correct? (3) Have I clarified words and concepts? (4) How reliable is my source of information? (5) Have I been objective?*

Some data may require validation. Can you think of examples? Example:  
Suppose you collect the following data by observation and listening to your patient.

She states she feels warm.

You see that she is flushed, that her skin feels warm and dry.

You form an impression or opinion that your patient has a fever. What further data could you collect to validate your opinion or impression? Right! You could take your patient's temperature.

You are now ready to identify the problems and make a nursing diagnosis.

### *Nursing Diagnosis*

Data collection, analysis, and interpretation must be accurate, for they are the basis for your conclusions or your nursing diagnosis. Errors or omissions can result in an error in nursing diagnosis.

The components of a nursing diagnosis are:

1. P: a statement of the *problem*.
2. E: the *etiology* of the problem.
3. S: the *signs* and *symptoms* used to make the diagnosis.

A problem is a situation in which the patient is experiencing difficulty in meeting his or her needs, in coping. Problems need to be stated very clearly and precisely. Remember, it is the basis for planning care.

If I say the patient is not eating, you don't know where to begin. If I say the patient is unable to chew his food without dentures, you have a lead. Note the following examples:

Impaired ROM versus unable to flex knees and wrists.

Pain versus inflamed, painful knees and wrists.

A *problem* well stated will reflect patient individuality. It is clear, concise, well defined, and conveys enough information to suggest to the knowledgeable nurse what can be done.

The *etiology* identifies the environmental, social, psychological, or physiologic factors that have contributed to the problem.

The *signs and symptoms* identify the patient behavior used to make your diagnosis and help prevent making a diagnosis based on insufficient data.

Problems need to be identified in a logical, systematic manner. Use your Basic Needs List from Volume I so no problem is overlooked.

Nursing diagnosis should only describe problems where therapeutic decisions can be made by the nurse, which the nurse is licensed to treat. Nursing diagnosis must be derived from nursing assessment and require nursing intervention.

A nursing diagnosis statement consists of a problem "related to" the etiology and "manifested by" the signs and symptoms. For example: poor food intake *related to* early fatigue as *manifested by* patient statement, "Too tired to eat" and pulse of 100.

It is desirable to use "related to" rather than "due to," "caused by," or "as a result of." These last examples imply cause and effect and are legally difficult to prove. "Related to" indicates it's "a probable reason for," not a cause.

In writing a nursing diagnosis you should keep in mind a few other guidelines:

Avoid lumping a lot of problems together

Don't make them too global

Avoid useless, fuzzy labels

"immobility problems"

"electrolyte imbalance"

"depression"

Don't use such elegant terms that meaning is not clear

"compromised integrity of the integument"

Don't use judgmental expressions

"uncooperative"

### *Problems versus Needs*

Problems are different from needs. A need is a requirement that an individual must have to maintain balance. For example: elimination is a need; constipation or diarrhea may be a problem.

### *Actual versus Potential*

Patients can have actual or potential problems. Actual problems are those the patient is experiencing at the present time. Potential problems are those that may occur because of the nature of the patient's actual health problems. They are suspected and written in order to gather more data or to prevent occurrence. What happens to one patient may not necessarily happen to another.

Potential problem statements include the potential problem and the etiology. They do not have signs or symptoms.

Example: May develop constipation related to use of codeine q3h/3 days.

Susceptible to infection related to WBC 3000, age 5.

### *Nursing Diagnosis versus Medical Diagnosis*

Nursing diagnosis is different from medical diagnosis. Remember that the diagnosis must be derived from nursing assessment and require interventions in the domain of nursing. A nurse may be able to prescribe treatment for limited ROM, constipation, or a lack of knowledge, but cannot prescribe for emphysema, diabetes, or anemia. These diagnoses require medical intervention for control.

Some terms are used jointly by nurses and doctors and can be used when writing nursing care plans. An example would be dyspnea. It is not a medical diagnosis but a commonly used medical term.

Some statements would be legally inadvisable to use.

Example: Red sacrum related to improper positioning.

Anxiety related to doctor not explaining therapy.

### **Step 3—Planning**

Assessment data is only useful if it is used. This leads to the need for an organized, written nursing care plan. This is a means of making a patient's care individualized and patient-centered. It is also necessary to write it, because without communicating the plan to other health team members, there is a lack of continuity and individuality. It should be simple to understand and easy to read.

### *Ranking*

When physiologic problems exist, they generally take priority, especially in the critically ill patient. Once the physical condition is stabilized, then the nurse can think about emotional or learning needs.



If the patient had problems meeting his or her need for oxygen, fluids, food, elimination, and rest, they probably could be ranked in that order, oxygen being the #1 priority and rest #5. Safety needs, if they exist, would be #6; emotional needs follow.

Occasionally, a patient comes into the Emergency Room needing oxygen but experiencing such a high level of anxiety that the nurse can't put the oxygen equipment in place. In this case, dealing with the anxiety would take #1 priority in order to get oxygen to the patient.

Maslow provides a guideline for planning, but in any situation other factors may alter the plan and have to be accounted for. If you need to rearrange priorities and they are inconsistent with Maslow, you should be able to explain the rationale for your decision.

### Goals

Outcome criteria, or goals, are the means by which the nurse can measure the quality, quantity, and suitability of the nursing care given.

It is first necessary to establish objective criteria. To do this, decide what needs to be measured. Use the manifestations and symptoms in the nursing diagnosis to write the desired criteria. Example:

<i>Nursing Diagnosis</i>	<i>Outcome Criteria for Evaluation (Goals)</i>
Lung congestion related to pneumonia manifested by auscultation and chest x-ray, respiratory rate 20, frequent productive cough	Lung sounds clear, chest x-ray clear, respiratory rate 14, decreased coughing

Also, state the *degree* of observable change and a *time period* to observe. In the example above, quality is indicated but not quantity or frequency. We could say that the criteria would be met in two days. Some goals can be met in a *short* period of time while other goals may require a *longer* time for achievement. It is important to set realistic goals for patients.

<i>Nursing Diagnosis</i>	<i>Expected Outcomes (Goals)</i>	<i>Nursing Interventions</i>
Alteration in nutrition related to lack of information re calorie requirements and foods low in calories	Able to plan 1200 cal diet for 3 da. Eats only foods allowed on diet Loses 2 lb/wk til desired wt of 150 lb is achieved	Review 1200 cal diet 12/6 Assess recall of foods allowed and foods to be avoided 12/7 Wt every T & F Assist with menu selection × 3 da. 12/7-9
Chest pain related to lack of oxygen to heart muscle manifested by pt. statements, use of pain med. q4h, P 100, R 18	Pt. states no pain or states relief with pain med. P 72, R 16	Decrease O <sub>2</sub> need of heart Give Rx where pain occurs

## Interventions

*Before giving care, nursing interventions need to be selected to prevent, solve, or remove patient problems. They may include observing or collecting additional data (further assessment), nursing activities to provide assistance, regulating the environment or preventing injury, carrying out the medical therapies prescribed, and/or health teaching or education.*

When identifying nursing interventions, they should be chosen for that individual patient. There are many ways of providing comfort. Choose those that will work with this patient.

*Interventions should be specific, telling what, when, and how.* If you want to increase fluid intake, indicate kinds of fluids (it may be important for the fluid content to be protein as opposed to coffee), amount to be increased (total for one patient may be 1500 ml/day and for another 3000 ml/day), and when offered (could be increased with between-meal drinks at 10, 2, and 8 if patient drinks freely, or if unable to tolerate much at a time, may need to be increased in lesser amounts every two hours).

As a student, to increase your learning and understanding of nursing intervention, your nursing care plan will include a *statement of rationale for your actions*. Rationales are the scientific reasons or the principles upon which you base your action. It is a broad, widely accepted physiological or psychological concept or principle that explains why a particular intervention is suitable for your patient. It may also explain what has gone wrong in illness.

### Step 4—Implementation

*Implementation* is the fourth step of the nursing process and is the *activation* of the written nursing care plan. This includes written documentation of the effectiveness of the interventions. It includes further assessment, nursing activities, teaching, and carrying out prescribed medical orders. The nurse is responsible for the planning, communication, and coordination of care, but may delegate actual care to others. This is the only step of the nursing process that can be delegated to others.

*Independent nursing actions* include management of patient care by assessing and identifying patient problems and planning for their elimination, supervision and teaching of others who participate in patient care, the performance of nursing procedures, observation of signs and symptoms and the response to therapy, and accurate recording, reporting, and evaluation.

*Dependent nursing actions* involve carrying out the doctor's orders regarding treatments and medications.

The documentation of all these is also part of implementation. Every doctor's order must be documented as having been carried out. All assessments and response to therapies, whether favorable or unfavorable, must be recorded. Remember—if you didn't document, you didn't do it.

### Step 5—Evaluation

Using your outcome criteria, observe behavioral responses of the patient and record in the care plan and/or the nurse's notes. These might include the patient's verbal or nonverbal actions and the presence or absence of clinical symptoms. The actual outcomes of patient care are compared to the desired outcome.

If it turns out that the care plan worked, the interventions may be continued. If the

care was ineffective, then the plan needs to be revised. You may need to choose alternative interventions, collect and analyze more data, and/or establish a new nursing diagnosis.

### **SAMPLE: DATA BASE FORM (A Patient with Diabetes)**

1. **Physical Description:** Alert, obese white male. Has blue eyes, thin graying hair. Is clean, well-shaven. Wears partial plate, upper, and glasses. Hearing is ok. Moves arms well. Has left lower leg partly paralyzed. Is right handed. Skin on feet, dry, cool. Has blackened 4th and 5th toes on left foot. Left leg reddish-purple color.
  2. **Social Data:** Initials: S.R.  
Sex: Male.  
Marital Status: Married.  
Age: 78.  
Religion: Catholic.  
Education: 12th grade.  
Occupation: Retired plumber.
  3. **Physiological Data:** Diagnosis: Diabetes, 10 yrs., ASHD, ischemic left foot.  
Hospital Day: 9.  
Surgery: Graft to left femoral artery (thromboendarterectomy).  
Days post-op: 8.  
Other Hospitalizations, Operations: Graft, carotid artery—left side, 1968; right side, 1972.  
Physical Examination: Normal except for long history of ASHD, absence of femoral pulses, and left lower partial paralysis.
  4. **Environment:** Family Members: Lives with wife who is well. Two children out of town.  
Living Accommodations: Own home with large garden.
  5. **Average Day:** Hygiene: Shower 1× week.  
Rest/Sleep: Up at daybreak until 10 P.M. Sleeps well, naps after lunch.  
Meals/Diet: Has coffee with sugar for breakfast, light lunch and regular dinner.  
Activity: Retired, putters in workshop, cares for pets. Takes daily walk.  
Elimination: Tendency to be constipated. Uses MOM. Eats fresh fruit.  
Does sugar and acetone 1× day if not feeling well.
  6. **Chief Complaint:** Left foot tender, very painful. Difficulty walking.
  7. **Mental/Emotional Status:** Does not like being dependent. Seeks help only with severe pain. Resigned to chronic illness and pain.
  8. **Current Medical Orders:**  
NPH Insulin 45u every A.M.
- Expected Outcome:**  
Pt. not producing insulin, replacement will allow pt. to metabolize CHO, lowering blood sugar.  
NPH dose not established. Illness may increase need. Ensures adequate coverage for pt. need.



Rainbow-Coverage:

Regular insulin every 4hrs.:

1 + 5u.      3 + 15u.

2 + 10u.    4 + 15u.

S & A every 4hrs.

Ascriptin with Codeine gr.  $\overline{ss}$  q3-4h  
prn.

Demerol 75 mg. q3-4h prn I.M.

Dulcolax supp. prn.

Seconal 100 mg. hs, prn.

Up as desired.

ADA 1800 cal. diet.

Determines insulin need.

Relief of lesser pain.

Relief of severe pain.

Prevent constipation.

Sleep and rest at night.

Will not lose strength and able to perform  
ADL at discharge.

Balanced diet and weight reduction.

9. Current Lab Exams and Results (Circle Abnormals):

Hct. 49%.

Hgb. 13 gm.

WBC 11,700.

UA normal except (1+) sugar.

Chest x-ray clear.

FBS on admission (250 mgm.); or  
today 80 mg.

Triglycerides (244).

## NURSING CARE PLAN (A Patient with Diabetes)

This plan is given in great detail for learning purposes.

<i>Nursing Diagnosis</i>	<i>Rank</i>	<i>Outcome Criteria (Goals)</i>	<i>Nursing Intervention</i>	<i>Rationale</i>	<i>Evaluation</i>
Impaired arterial circulation related to atherosclerosis as manifested by cool, dry skin of feet, mottled left leg, and blackened 4th and 5th toes, left foot	1	No further change in temperature or color of foot	Elevate feet when sitting (no dangling) Do not elevate knee gatch Inspect for early signs of pressure  Footboard  Avoid constrictive clothing (socks, tight shoes)  Active range of motion to feet and ankles Discourage smoking  Caution about use of hot, cold application and injury to lower extremities Gently bathe feet daily with warm water	Diabetics are prone to atherosclerosis, which impairs circulation Pressure areas produce constriction that prevents adequate venous return, which leads to tissue damage Injuries heal slowly because of faulty metabolism and are more susceptible to infection Footboard will provide warmth yet prevent weight on top of toes decreasing pressure areas that impair circulation Maintenance of adequate circulation to peripheral vessels may be insured by prevention of pressure areas and constriction Exercise is muscle work that increases muscle tone and blood circulation Smoking causes constriction of blood vessels resulting in decreased tissue oxygen and impaired circulation to the extremities Impaired sensory perception increases potential for tissue trauma	Warm, moist natural color to legs above knees No change below knees No evidence of increasing inflammation, pressure, accident
Difficulty ambulating related to pain in left foot as manifested by limp and patient statement of soreness	2	Ease of ambulation Positive response to environment Changes position frequently Able to walk to end of hall without pain Will not fall, or stumble Wears shoes Participates in exercise	Assist with ambulation, may need cane Observe for abnormal gait  Monitor distance patient walks, increasing as tolerated  Clear hazards in walking area  Check that shoes are well-fitting	Warmth and moisture of bathing cleans, increases circulation, decrease pain, and increases comfort Gentleness will decrease trauma, increase comfort Ambulation helps restore normal physiological function, stimulates circulation, increases muscle tone and strength, and increases endurance resulting in decreased dependency Abnormal gait may indicate ill-fitting shoes with pressure or injury to left foot Gradually increasing distance as tolerated provides for a change of environment, increases independence and exercise Removing obstacles in the walkway prevents stumbling that may result in injury Correctly fitting shoes will minimize falling, friction, and/or pressure on injured left foot, reducing risk of further damage to feet The ability to move freely is essential to self-worth and independence	Does not stumble or run into objects Interested in view from hall window Walks, sits, stands freely Walking in hall 2 X this A.M.

May not ask for help when uncomfortable related to independent role as manifest by wife's statement "He's a stoic" and nursing observations of patient looking away when wife cried and not asking for pain med. when in pain	6	Physical appearance of comfort Verbally expresses comfort Relates confidently with others	Anticipate need before patient asks  Ask patient what makes him comfortable Observe and measure food intake Test for sugar and acetone Observe for symptoms of metabolic acidosis: deep, rapid respirations increased urine output dizziness malaise Allow patient to make decisions regarding activity, environment	Unmet physical or psychological needs can create disequilibrium Meeting needs before patient asks offers security, attention, recognition, increases comfort, allows for necessary dependency and recognizes patient's value One feels comfortable when one knows that comfort needs will be met A nutritious, balanced one-third carbohydrate intake per meal should be provided and encouraged. An inadequate dietary intake may result in imbalance with insulin given When diabetes is out of control, sugar and especially acetone appear in the urine The signs listed may indicate hypoglycemia, which requires immediate treatment Independence comes from making choices Safety and psychological comfort lead one to feel he can cope with life and control the environment	Calm, relaxed face, normal posture, moves freely Says "I am comfortable" Feels sure of nurse Asked for pain meds. when nurse structured conversation so it was easy for him  Urine tests—24 h neg. for S & A
Nonacceptance of increased dependency on diet and insulin related to diabetes, evidenced by refusal of help, pain meds., and omission of breakfast. Did not call Dr. early when illness began Asks questions about self-care	4	Recognizes need for change	Accept patient as he is Encourage patient to accept limitations Increase self-esteem with positive responses Encourage interdependency  Observe patient for a. degree of insight b. need for response c. favorable response to therapy d. use of defense mechanisms	Accepting patient as is provides for psychological safety and allows for testing of others A good feeling about one's self is consistent with our real self A positive response indicates acceptance and increases self-esteem People must be interdependent if they are to lead a full life The degree of insight affects the recognition and resolution of patient's problems. His use of normal coping mechanisms decreases fear, anxiety, and helps reestablish equilibrium	States need to change to maintain health Makes statements like "I can't do all I used to"  Accepts suggestions regarding diet
Inadequate information related to diabetic management as manifest by weight (obesity), admitting FBS, diet history, pre-gangrenous left 4th and 5th toes, and statements that indicate little understanding of disease and its complications	5	Has acquired knowledge as evidenced by: good skin turgor maintaining weight prompt healing of sores daily intake of basic four food groups feet clean, no odor makes verbal, nonverbal responses that reveal learning has taken place	Determine extent of lack of information, misconceptions, willingness and ability to care for self Include wife in teaching as she prepares meals Teaching plans 1. Describe: a. characteristics of diabetes and its complications b. symptoms of coma, shock, and what to do	A person's education and knowledge indicate the ability of the pt. to recognize and solve problem Wife will be fearful and anxious with lack of information and noninvolvement in care Including wife will reassure pt. he will be cared for Control of diabetes is essential to health and comfort of diabetic Individual control of diabetes may delay progression of vascular disorders and prevent complications	Unable to identify coping mechanisms  Unable to evaluate at this time



# NURSING CARE PLAN (A Patient with Diabetes) (continued)

<i>Nursing Diagnosis</i>	<i>Rank</i>	<i>Outcome Criteria (Goals)</i>	<i>Nursing Intervention</i>	<i>Rationale</i>	<i>Evaluation</i>
			<p>c. how to test for S &amp; A  d. how to give insulin (knows, have pt. demo), rotate sites and care for insulin</p> <p>2. Recommend he carry life-savers</p> <p>3. Review diet:  a. principles of good nutrition for maintaining body weight  b. recommend no between meal snacks of conc. sweets  c. exchange lists and how to use</p>	<p>A fast acting sugar immediately raises blood sugar when meals are delayed but should be followed soon with slower acting food</p> <p>Knowing how to manage a diabetic diet will support good health</p> <p>Snacking increases caloric intake compounding problems of obesity</p>	

## SAMPLE: DATA BASE FORM (A Patient with COPD)

1. Physical Description: White, married male, slightly receding, close-cropped, gray hair. Eyes are hazel and bright. His features are angular with deep creases in facial skin. He is 5'10" and 110 pounds, small frame with slightly barrel-shaped chest. He is emaciated with loose, thin skin covering bony prominences and ribs. His skin is pink and warm, feet cool. Has tattoos on arms. Becomes short of breath, irritable very quickly.
2. Social Data: Initials: R.S.  
Sex: Male.  
Marital Status: Married.  
Age: 74.  
Religion: None.  
Education: 12th grade.  
Occupation: Retired assembly line—cars.
3. Physiological Data: Diagnosis: COPD. Hospital Day: 5.  
Surgery: None. Days Post-op: 0.  
Other Hospitalizations, Operations: 10 yrs. COPD, yearly admission, no surgery.  
Physical Exam & Medical History Highlights: Appears chronically ill, dyspneic at rest with poor color, cyanosis of extremities. Barely able to talk. Mucous membranes dry. Lungs: expiratory wheezing, hyperresonant to percussion. Marked intercostal retractions. Uses abdominal muscles for breathing. Very little chest wall movement. Lower abdomen slightly distended, nontender. BP 110/70, P 140 irregular. Extremities cyanotic without edema. Other systems negative. Allergic to feathers.
4. Environment: Lives with wife in small ground-level apartment downtown.
5. Average day: Hygiene: Shower q 2–3 days.  
Rest/Sleep: Sleeps 1–2 hrs, then wakes up short of breath, coughing.  
Has own bird at home and often requires treatment at night. Naps during day.  
Meals/Diet: No breakfast, light lunch and dinner. Sometimes skips meals  
Wt. loss 10 pounds this year. Smokes 2–3 packs cigarettes a day.  
Has tried Sustagen. Does not like taste.  
Activity: Limited. Gets up for meals, to go to the bathroom, and to watch TV. Sometimes sits out in sun.  
Elimination: BM q 2–3 days. No difficulty voiding.
6. Chief Complaint: Shortness of breath. Anorexic last month.
7. Emotional/Mental: Becomes easily irritated. States he hopes his next breath will be his last.
8. Current Medical Orders: Expected Outcome:  
Ampicillin 250 mgm. p.o. qid. Control of mild infection.  
MOM 30 cc daily prn. Decreased distention and regularity without straining.  
IPPB  $\times$  10 min q2h prn wheezing. Promote adequate ventilation by decreasing airway resistance and spasms, mobi-  
Add 2cc NS with 1/2 cc. Bronkosol.

Ambulate with help.

Protein supplement between meals.

Soft diet.

lize secretions, and vehicle for aerosol therapy.

To increase muscle tone, improve circulation.

Protein for tissue building and to increase muscular reserve power for breathing.

To ensure adequate nutrition while preventing prolonged upward pressure on diaphragm, which interferes with chest expansion.

9. Current Lab Exams & Results: (Circle abnormals)

Hgb. 14.3 gms.

Sodium 144.

$P_{CO_2}$  60.

pH 7.3.

Hct. 43%.

Potassium 4.3.

$P_{O_2}$  40.



## NURSING CARE PLAN (A Patient with COPD)

<i>Nursing Diagnosis</i>	<i>Rank</i>	<i>Outcome Criteria (Goals)</i>	<i>Nursing Intervention</i>	<i>Rationale</i>	<i>Evaluation</i>
Nausea, anorexia, and malnutrition related to chronic illness, hypoxia, respiratory acidosis and increased muscle activity required for breathing, which leaves patient too tired to eat as manifested by loose skin, diet history, weight loss, muscle atrophy and inability to finish lunch tray	4	Able to finish each feeding 5 pound weight gain over next month  Chooses easily digested foods from four basic food groups on select diet Soft, nondistended abdomen Soft stools q 2-3 days Awake for extended periods of time States less tired	Assist with eating if too tired Allow ample time Provide rest periods before and after eating Stimulate appetite Mouth care before meals Prevent constipation Observe for level of consciousness Limit sedatives and narcotics Oxygen at 2-3 L/min IPPB prn ROM	Adequate nutrition increases patient's strength for work of breathing Nurse must provide support when patient is too dyspneic or tired to meet own needs Dyspnea occurs and interferes with adequate nutrition Swallowing is difficult as he cannot hold his breath, leading to exhaustion Individual preferences and holding food in mouth may lead to unrecognized distress Full bowels raise the diaphragm decreasing movement and interfering with ventilation A decrease in ventilation can occur if sleeping for extended time These medications decrease respiratory rate Low concentrations of oxygen will increase arterial oxygenation while decreasing risk of CO <sub>2</sub> narcosis Use of O <sub>2</sub> and IPPB will help to correct acidosis Activity will increase muscle tone and joint flexibility for future activity Walking improves circulation, proprioceptive stimuli increase respirations Talking increases oxygen need	Able to eat three-quarters of feeding Requires assistance in P.M.
Weak, lethargic related to hypoxia; increased muscle activity used for breathing, respiratory acidosis	1	Appears physically less tired	Assist to walk if possible Keep visits brief Make small decisions for patient Save breath for what is important to patient Rest in Fowler's position		Appears physically tired Easily aroused
Unable to sleep all night related to cough and shortness of breath manifested by patient states he wakes up coughing and needs to sit up nurse's notes indicate occasional use of IPPB during night	2	Longer periods of sleep at night to 5 h per night sleep Decreasing number of times awakening during night  Decreased respiratory rate and distress When coughs, cough is productive	Plan for periods of uninterrupted rest Observe for and relieve anxiety Teach patient control of distress Give IPPB with bronchodilator	Gravity provides greater diaphragmatic excursion when abdominal contents sag and removes fluid to dependent parts preventing pooling in pulmonary vascular structures Insomnia exists frequently at night Relaxation and restoration are necessary when metabolic needs are increased. Patient tires easily and works hard to breathe during day Emotional stress interferes with sleep and increases fatigue Loss of control increases anxiety and prevents patient from controlling breathing Bronchodilator will decrease spasms, increase ventilation Mist will help liquify sputum	Slept for 3 h at a time Respirations 26
Chronic productive cough related to tracheobronchial irritation and need to clear secretions	5				Coughing mostly in early A.M.

# NURSING CARE PLAN (A Patient with COPD) (continued)

<i>Nursing Diagnosis</i>	<i>Rank</i>	<i>Outcome Criteria (Goals)</i>	<i>Nursing Intervention</i>	<i>Rationale</i>	<i>Evaluation</i>
Unable to care for self related to debilitated state, exertional dyspnea as manifested by increased pulse rate to 120 and unable to speak during activity	6	Able to assist with own shower prior to bedtime	<p>Observe sputum for infection</p> <p>Give bath late (in P.M.)</p> <p>Observe effect of activity on patient breathing</p> <p>Protect from temperature fluctuations</p> <p>Coordinate physical activity with oxygen supply</p> <p>Teach abdominal breathing and resistive breathing exercises</p>	<p>Increased amount or change in color is an early, first sign of infection which needs early treatment to prevent additional loss of lung function</p> <p>Coughing is most frequent in A.M. and mucus is thick. Great effort is required to raise and expel it. When this occurs, schedule should be planned to allow for IPPB and removal of mucus with a rest period before beginning other activity</p> <p>Cold air may cause bronchospasms, heat increases oxygen need</p> <p>Fatigue is the most important problem of the patient as it increases breathing problems. Reduced activity decreases muscle mass</p> <p>If he can learn to modify and control muscle movements, he can learn to breathe with less energy</p>	<p>Sputum is thick and yellow</p> <p>Requires full care except feeding and shaving</p>
Inadequate fluid intake related to chronic illness, shortness of breath, nausea, tiredness as manifested by inability to raise sputum, dry skin and mucous membranes, 1,000 cc intake during last 24 h	3	<p>24-h intake is 2,000 cc with adequate output</p> <p>Thin secretions</p> <p>Moist mucous membranes</p>	<p>Increase intake to 2,000 cc/24 hrs</p> <p>Observe for dehydration and overhydration</p> <p>Measure and compare I &amp; O q 8 h</p> <p>Offer fluids q 2 h</p>	<p>Adding to patient education through demonstration will aid patient when returning home to conserve existing lung function</p> <p>Normal respirations are essential to tissue oxygenation. Symmetrical chest excursion means both lungs are receiving the same amount of air at the same time</p> <p>Severe alterations or imbalance of fluids can lead to impaired cellular activity</p> <p>Since body fluids are diverted into secretions and mouth breathing, patient may become dehydrated</p>	<p>Last 24-h intake 1,500 cc</p>
May develop edema with right-sided heart failure related to hypoxia and acidosis	8	No evidence of signs or symptoms	Observe for decreased tolerance for exercise, weight gain, ankle swelling, increased difficulty breathing	Patient has depressed sensorium and may be unable to respond to sensation of thirst	No weight gain or pedal edema present
Possible spontaneous pneumothorax related to rupture of emphysematous blebs	9	No evidence of signs or symptoms	Observe for dyspnea, cough, chest pain, decreased chest excursion	When distended aveoli break on the surface of the lung, it causes air to enter the pleural space leading to collapse of lung	
Possible respiratory infection	7	No evidence of signs or symptoms Normal WBC	Observe for increasing amount of, or changing color of sputum, increasing shortness of breath, increased cough or temperature	Infection causes further lung damage and loss of lung function decreasing ventilation. Patient is prone to infection because of decreased resistance. Early observation of signs by nurse can prevent severe attacks	<p>Temperature 99°</p> <p>No change in cough or color of sputum</p>

## NURSING CARE PLAN (NCP)

<i>Nursing Diagnosis</i>	<i>Rank</i>	<i>Outcome Criteria (Goals)</i>	<i>Nursing Interventions</i>	<i>Rationale for Intervention</i>	<i>Evaluation</i>



## DATA BASE FORM (DBF)

1. Physical Description:
2. Social Data: Initials:  
Sex:  
Marital Status:  
Age:  
Religion:  
Education:  
Occupation:
3. Physiological Data: Diagnosis: Hospital Day\_\_\_\_\_  
Surgery: Days Post-op\_\_\_\_\_  
Other Hospitalizations, Operations:  
Physical Examination and Medical History Highlights:  
Baseline Vital Signs: Ht.: Wt.:
4. Environment (Home Situation): Family Members:  
Living Accommodations:
5. Average Day (Life-style): Hygiene:  
Rest/Sleep:  
Meals/Diet:  
Activity:  
Elimination:
6. Chief Complaint or Concern of Patient (in patient's words):
7. Mental/Emotional Status:
8. Current Medical Orders: Expected Outcome:
9. Current Lab Exams and Results:

## PATIENT'S DISCHARGE PLAN

Doctor's Discharge Orders:

Instructions Regarding:

*Medications*

*Diet*

*Home Health Services Contacted*

*Physical Care/Activity*

*Dressing Supplies*

*Doctor's Appointment*

*Special Therapy, Appointments*





## LEVEL SIX

# WHY SHOULD I STUDY?

Level Six includes one LEG in each component of care: **A. Crisis, B. Regulatory, and C. Body Systems.** Information included at this Level will give you some background materials for the rest of this Volume and help you utilize the theory and skills learned in Volume I as you focus on specific health problems of patients.

You will find that patients' physical and emotional problems can be studied in all settings: general medical-surgical, pediatric, psychiatric, outpatient departments, physicians' offices.

In your clinical experiences, you will want to perfect and improve the basic skills you learned in Volume I (for example, giving medications to a group of patients instead of one patient), improve your ability to work with patients, and increase your manual dexterity, in addition to learning new theory and skills in this Volume. To help you do this, in each Level we have identified general clinical performance expectations for you.

To meet the **Clinical Performance Expectations** at the end of Level Six, you should be able to:

1. Use time with patients for learning more about health problems.
2. Show increased skills in organizing and giving nursing care.
3. Make a written plan for your learning experiences for the day.
4. List your plan of actions, either in writing or verbally, for your instructor to check before you go on to do a new procedure.
5. Identify and report verbal and nonverbal communication problems of patient and family.
6. Use basic verbal and nonverbal communication skills to identify and reduce anxiety in your patient, your patient's family, and yourself.
7. Make nursing assessments that can be used as a guide for planning nursing care.
8. Identify and rank nursing diagnoses using basic needs as a base.
9. State or write nursing interventions to be used for each nursing diagnosis.
10. Provide care based on nursing diagnoses.
11. Evaluate nursing care according to expected outcomes (goals).
12. Teach patients about self-care and preventive measures according to a teaching plan.

The clinical experiences described with each group of Objectives are not meant to limit your practice but to offer you new areas for learning. Be sure that you are building and working toward giving more complete care to patients. At the end of this Level, reread the 12 expectations above and evaluate your progress.



# LEG VI-A Crisis, Grief, and Psychoneurotic Problems

## WHAT WILL I LEARN?

Since the beginning of your nursing program, you have spent a great deal of time, effort, and possibly frustration over learning and beginning to perfect your communication skills. You have learned some basic knowledge about how personality develops and how the mind protects itself from painful experiences through the use of defense mechanisms. In this LEG you will begin your study of crisis intervention and grief reactions that include depression.

A **crisis** is considered to be occurring when a person's customary methods of problem-solving do not work and signs of anxiety and inability to function are evident. The person becomes upset and loses emotional equilibrium for a long period of time. He or she searches for new methods of solving the problem or finally adapts to not finding a solution but to accepting the event or situation. A state of equilibrium then develops that may be better or worse than the one the person experienced before the crisis event occurred. Each crisis event can be a maturing experience since it stimulates a person to learn new and better coping behaviors. However, the crisis may remain unresolved, causing this person to relive the event with each succeeding life crisis; this pattern continues until that person can be helped to develop successful coping behaviors for dealing with such events.

You might be the key person or be able to help a key family member to interact in such a helpful manner that the patient can develop problem-solving skills. Or you might recognize the patient's need for a professional therapist and be able to communicate these observations so that help can be obtained during those critical days. No longer do we close our eyes to a patient's problems and say "Oh, it will go away with time. He'll get over it," or "She'll be O.K."

In addition, you will begin to look at the use of anxiety as seen in the form of psychoneuroses and psychophysiologic disorders. How do the growth and development of the child and the environmental stressors and influences help determine the mental wellness or illness of a person?

When a patient is dying, your own coping behaviors will be stressed. You will learn how to recognize your own feelings so you will be able to help a person who is dying. Then, you will prepare the body after death.

The **Content of the Objectives** for LEG VI-A is:

Therapeutic Relationship and Psychosocial Assessment (1, 2)

Crisis Intervention and Normal Grief Process (3-7)

Depression as a Response to Loss (8-13)

Assisting the Patient in Coping with Death; Providing Postmortem Care (14-18)

Disturbed Coping Patterns: Psychoneurosis and Psychophysiologic Illness (19-23)



For review of earlier related information, see:

LEG IB—*nonverbal and listening skills.*

LEG IIB—*initiating and maintaining a relationship; recognizing feeling tones (begin a process recording); assessing learning needs.*

LEG II-C—*helping a patient with decision making; differences between social, interviewing and therapeutic conversations; problem-solving responses; interviewing as an assessment skill.*

LEG III-A—*reporting to a team member.*

LEG IV-A—*using therapeutic communication skills.*

LEG V-B—*helping clarify and solve a problem; communicating with patients with speech or hearing problems.*

LEG V-C—*communicating with patients who are blind.*

### WHAT'S AHEAD IN LATER LEGS

You will be expected to apply your knowledge of crisis theory when caring for patients in the following LEGS:

LEG VII-A—*preparing patients for surgery.*

LEG VIII-A—*caring for patients in labor.*

LEG VIII-C—*preparing for a colostomy operation.*

In LEG IX-A you will study and care for patients with mental illnesses (psychoses) as well as other emotional problems.

You can see that this LEG is another step in your learning how to aid patients with their emotional levels of wellness. Take good notes because you will be referring back to LEG VI-A frequently.

## OVERVIEW OF LEARNING EXPERIENCES IN LEG V1-A

<i>Objectives</i>	<i>Campus Lab Practice</i>	<i>Group Discussions/Lecture</i>	<i>Clinical Lab Focuses</i>
1. Therapeutic relationship, 2. psychosocial assessment (E)		B1. Therapeutic skills necessary for making a psychosocial assessment	B2. Psychosocial assessment Evaluate relationship
3-6. Crisis situations and interventions 7. Normal behaviors during the grieving process		B2. Nursing process and crisis intervention	B4. Care for patients experiencing a loss Record conversations and feelings
8-12. Grief and depression 13. Antidepressant drugs		B1. Helping persons with depression	B2. Talk with and care for depressed patients Observe medications and complete drug cards Identify your own strengths and weaknesses in helping patients
14. Assisting people in expressing grief 15. Helping a patient adjust to a loss 16. Coping with a fatal illness 17. Caring for a dying patient 18. Postmortem care	B1. Care of body after death	A4. Hospice care (guest speaker) B2. Care of the dying patient	B3. Care for patients with terminal illness; write nursing care plans Talk with nurses about caring for dying patients Attend a nursing conference on planning care Find out about postmortem procedures Visit morgue
19-21. Psychoneuroses (E) 22. Psychophysiologic illness 23. Antianxiety (minor tranquilizing) drugs		B3. Anxiety and neuroses	B4. Look for patients taking medications listed in Objective 23 Practice describing patient behavior

# NEW TERMS AND ABBREVIATIONS

It's your responsibility to know the meaning of these terms not only in LEGS but also when you hear or see them in the clinical situation.

adrenal glands	endocrine system	psychiatry
affective disorders	equilibrium	psychoanalysis
amputation	grief process	psychology
autonomic nervous system	grieving	psychoneurosis
body image	hospice	psychophysiology
coping behavior	hysterectomy	psychosexual disorder
crisis	life change units	psychosocial
depression	malignancy	radical mastectomy
disease { functional	mourning	resolution
{ organic	postmortem	ritualistic behavior
dissociative disorders	premortem	somatoform disorders
	prostate gland	terminal illness



# OBJECTIVES

## *Therapeutic Relationship, Psychosocial Assessment*



1. Describe what is meant by having a therapeutic relationship.



2. State the rationale for making a psychosocial assessment. \*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the number of patients you have talked with during the past few weeks. How many times did you use your therapeutic communications skills? It's hard to get in the habit of focusing most of your attention on the patient's needs when your own needs are causing you such anxiety. But you should have developed some self-confidence by now and be able to perform many of your nursing skills more routinely and efficiently. If so, you are ready to take the next step toward helping patients with emotional problems. These problems will usually accompany a physical disorder and can be found on any medical, surgical, obstetric, or pediatric unit. In this LEG you will learn to recognize causes of emotional problems and the resultant changes in behavior. So don't delay any longer in perfecting your communication skills.

2. **Read** in psychiatric nursing and communication textbooks about *therapeutic relationships* and *psychosocial assessment*.

#### Books

- Egan, Gerard, *Exercises in Helping Skills*, Monterey, CA, Brooks Cole Publishing Co., 1975, Sections 1-6.
- Smith, Sandra F., and Duell, Donna, *Nursing Skills and Evaluation, A Nursing Process Approach*, St. Louis, Mosby, 1982, "Mental Status Assessment," p. 191.

#### Journals

- Bruce, J. A., and Snyder, M. E., "The Right and Responsibility to Diagnose," *AJN*, April 1982, p. 645 (nurses in the future can expect to be held accountable for adequate assessment, diagnosis, and treatment of a nursing problem).
- Dossey, B., "Perfecting Your Skills for Systematic Patient Assessments," *Nursing* 79, February, p. 42 (inserts: guidelines for head-to-toe physical assessment and guidelines for major systems physical assessment. Suggests that guidelines need to be in your head; practice makes perfect).
- Farrell, Jane, "The Human Side of Assessment," *Nursing* 80, April, p. 74.
- Hein, Eleanor, "Providing Emotional Support to Patients," *Nursing* 82, June, p. 29.
- Reynolds, Janis I., and Logsdon, Jann B., "Assessing Your Patient's Mental Status," *Nursing* 79, August, p. 26.

\* Note: The ladder symbol means the objective may be omitted or reworded for LP/VN students.

## Programmed

"Mental Status Assessment" (AJN), 1981.

### 3. View audiovisuals.

"Psychosocial Assessment, Parts 1 and 2" (30 min. each, AJN).\*

"Techniques of Therapeutic Communication" (CM).

"Blocks of Therapeutic Communication" (CM).

### 4. Write the answers to these questions.

- (a) Briefly describe what is meant by a therapeutic nurse-patient relationship. List the essential ingredients and skills.
- (b) List your personal strengths and weaknesses in developing nurse-patient relationships.

#### *Strengths*

*Example:* Am very aware of non-verbal communication between myself and the patient

#### *Weaknesses*

Am ill at ease when talking with children

5. **Practice** some of the communication skill exercises in Egan's book. You may have completed some of these in Volume I. Your instructor will guide you in selecting the appropriate exercises.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a group discussion on "Therapeutic Skills Necessary for Making a Psychosocial Assessment."

- What factors or influences in the hospital make it difficult to make an accurate psychosocial assessment? List at least six reasons for making such an assessment.
- What information should be obtained from a psychosocial assessment and why. Which categories on the Data Base Form would give you this information?
- Discuss your feelings regarding the importance of religious beliefs in a person's life. Why is it important to be aware of a patient's beliefs? What do you do if you disagree with them?

\* See Audiovisual Sources at end of book.

Would it be important to find out about a patient's educational background, his or her feelings about work, and about the significant other people in the patient's life? Why? Could you find out about the amount of stress a person has recently experienced? How?

- Practice interviewing each other in order to obtain information, paying special attention to how you word your questions and how you respond to the answers. If you have a video recorder, record yourselves before class and then help each other review your tapes and suggest improvements.

How are the following skills helpful in making the assessment?

active listening  
accurate observations  
empathetic responses  
showing respect  
being genuine and warm

- Does the therapeutic relationship encourage or discourage a patient from making decisions regarding his or her own health care? Explain how. How does this affect the traditional "caretaker" role of the nurse? Discuss specific examples of conflict between the "caretaker" and "therapeutic" nursing roles. How can these conflicts be solved?
- Review the "ANA Standards of Psychiatric and Mental Health Nursing Practice," These are found in psychiatric nursing textbooks. How do these standards guide the professional nurse's actions? Which standards are being met when you use therapeutic intervention and take a psychosocial assessment?

## **2. Plan for a clinical experience.**










- ▲ Complete a psychosocial assessment on a patient. Use sections from the Data Base Form or a form provided by your clinical agency or instructor. Analyze this assessment along with the physical assessment and complete a nursing care plan using the five steps of the nursing process.
- ▲ Evaluate your relationship with your patient. Identify the helping skills you were able to use. Which decisions did the patient make; which did you make? Were any made jointly (shared) by the patient and you? Share a list of these decisions in postconference. What is the value of recognizing who is making the decisions?





# OBJECTIVES

## *Crisis Intervention and Normal Grief Process*

-   3. *Given a list of events, select those that could result in crisis situations, identify if they are situational or maturational, and state your rationale.*
-   4. *Given a list of statements, select the ones that best describe why a person requires therapeutic intervention in time of crisis.*
-   5. *Given an example of a crisis event, describe healthy and unhealthy behavioral responses and the long-range consequences of each for the person or family experiencing the crisis.*
-   6. *Given an example of a patient anticipating or experiencing a crisis event, demonstrate using the nursing process to offer crisis intervention.*
-  7. *Given a list of behaviors, select those that could occur during a normal grieving process.*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the stressors of everyday living that create tension. We have all developed methods of coping with this; some of us yell or cry, some escape through sleep, and some jog. Now imagine yourself in your doctor's office for your yearly checkup and he tells you he has discovered a lump in your abdomen and further tests are needed and surgery may be necessary. Do you feel overwhelmed and speechless or do you feel angry and hostile? How well are you functioning at the moment, during the drive home, and later with your family? Are your usual methods of problem solving working? Do you feel in control? Do you need help from others close to you to manage even the simplest of decisions? In your imagination you have gone from experiencing a normal stressful doctor's exam to being in a *crisis situation* in which your normal state of health is in jeopardy. What losses or potential losses did you experience? These "crisis" Objectives will increase your understanding and teach you ways to help patients and yourself to manage crisis situations in healthy ways. Consequently these situations can become positive growth experiences.

### 2. View audiovisuals.

"Sources of Stress" (CM).

"Stress: A Nursing Concern" (CM).

"Stress and Disease, Part 2" (CM).

"Crisis Intervention: Parts 1 and 2" (N).

"When Disaster Strikes: Coping with Loss, Grief and Rejection" (HRM).

Part 1, "Understanding Crisis"

Part 2, "Grief"

Part 3, "Large-Scale Disasters"

"Crisis—Types, Causes, Factors Involved" (TR).

"Crisis—The Individual Approach to Intervention" (TR) Uses four steps of nursing problem-solving process.

"Crisis in Acute Illness" (TR) Dramatization of impending colostomy, uses nursing process.

"Crisis in Aging" (TR) Dramatization of a patient entering a nursing home, uses nursing process.

"Crisis in Hospitalization" (TR) Dramatization of a patient entering hospital, uses nursing process.

"Crisis in Adolescence" (TR).

"Crisis in Nursing" (TR) Dramatization of a nurse experiencing crisis event.

"Communicating and Interacting Effectively—#8 The Person in Crisis" (CM).

"Care of the Patient after a Radical Mastectomy" (20 min, ACS) Shows psychological and physical problems after change in body image.

"Crisis Intervention" (30 min, AJN).

"The Crisis of Loss" (30 min, AJN).

"Grief Therapy" (19 min, UCLA), 1976.

"Grieving: Suddenly Alone" (26 min, CHF).

**3. Read** about *crisis intervention, grief, mourning, denial, change in body image, loss of body function* in medical-surgical, psychiatric, geriatric, growth and development, and nurse-patient relationship references.

Review Volume I on *nonverbal communication, defense mechanisms, growth and development, and therapeutic communication skills*.

#### Books

Aguilera, Donna C., Messick, Janice M., and Albee, George, *Crisis Intervention*, 2nd ed., St. Louis, Mosby, 1981, 4th ed.

Blondis, Marion, and Jackson, Barbara, *Nonverbal Communication with Patients*, New York, Wiley, 1982, Chapter 7, "Crisis Intervention;" "Crisis," p. 190; "The Crisis of Grieving," p. 194. A nurse might say, "Don't be afraid to cry; it may be helping you to cope. You are so courageous." Tears may open the first door to real communication. Tears are nonverbal.

Narrow, Barbara W., and Buschle, Kay B., *Fundamentals of Nursing Practice*, New York, Wiley, 1982, "Social Readjustment Rating Scale," p. 58.

Smith and Duell, 1982, Chapter 20, "Coping with Crisis, Grief and Death," p. 763; "Intervening in Crisis Situations," p. 766; "Intervening in the Grief Process," p. 772.

**4. Write** your answers to the following study questions as you read, view, and listen in learning experiences A-2 and 3.

- (a) Write statements that help you to have a clearer understanding of the meaning of the words "crisis" and "grief process." Get at least one statement from each article you read. For example: "all crises involve a loss or threat of a loss; the process of adapting to that loss follows a distinctive pattern, which is referred to as a 'healing grief process.'"
- (b) List three to five phases or stages of the grief process and descriptions of the behaviors of persons in each stage. You will use this list for your group discussions for Objectives 7, 8 and 16.

- 1.
- 2.
- 3.
- 4.
- 5.

- (c) State why patients need help going through a normal grieving process. Write down your reference for this question.
- (d) Fill in examples of crisis and the loss involved, as shown in examples 1 and 2. This will give you a sample list for Objective 3.

*Situational Crisis Event*

*Loss Experienced*

- |   |   |
|---|---|
| 1. Amputation of a leg                                | Role as a man (strong, a family provider)<br>Ability to walk temporarily or permanently |
| 2. Caring for demanding, uncooperative patient        | Self-concept as a kind nurse  |
| 3. A past crisis of your own                          |   |
| 4. A past crisis in your family                       |   |
| 5. A crisis you have seen in the hospital             |   |
| 6. A crisis you can anticipate happening to a patient |   |

- (e) List the anticipated developmental or maturational crisis in the following age groups (use your growth and development references):

children

adolescents

young adults

middle adults

aged

- (f) What is the "Life Change Scale?" If this tool is available at your school, answer these questions. How can it be used to decrease stress and possible crisis situations in our lives? Give an example.
- (g) What stress is present in your life this week? When will this stress create a crisis situation and why? How do you react to stress during a crisis?
- (h) Explain the three time periods of the crisis sequence.
- (i) Select one patient who is anticipating a situational crisis event. List two actions you could take to help prepare him or her for the crisis.

List ways a nurse can help a patient cope during the crisis time period.

How would you know if you had helped? Describe the behavior as if you were charting. Include a *subjective* observation such as what the patient might say and an *objective* observation that you might make while caring for the patient.

What might occur if the patient was not able to cope with the crisis event?

How would you chart that behavior?

- (j) How does crisis intervention for the elderly person differ from intervention for younger adults?

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Apply the *Facts about Crisis and Grief* to the patient situations following them. Write the number of the statement(s) that explain or describe each of the following patients' behavior. You will use this in the group discussion in B-2.

### FACTS ABOUT CRISIS AND GRIEF

- |  |  |
|--|--|
| 1. The normal healing process of grieving cannot be accelerated. | 2. The healing process can be interfered with. |
|--|--|



3. Grieving takes certain predictable steps.
4. Familiarity with cultural patterns is necessary in evaluating the appropriateness of a grief response.
5. The child has less capability of resolving a loss than does an adult.
6. Any impending loss revives unfinished grief work from previous losses.
7. Preparation for a loss allows some of the grief work to go on before the loss occurs.
8. A crisis can stimulate a person to learn new and better coping behaviors.
9. Grief is a response to loss.
10. Helping people in crisis prevents later mental disorders.
11. Crises vary in severity.
12. Threats to self-image and life itself arouse anxiety, and through defenses the individual will strive to retain equilibrium, to maintain a consistent self-concept.
13. Anticipation of own death allows patient to progress through grief process and obtain a peace of mind prior to actual loss of life.
14. Crisis occurs when a person's customary methods of problem solving do not work and signs of anxiety and inability to cope are present.
15. A stress situation only becomes a crisis when a person cannot cope in his or her usual way.

1. A student had a date with a boy she had secretly admired for weeks. When the night of the date came, the boy didn't show up, nor did he call. The girl said she must have misunderstood him and that she had a headache, anyway, so it's a good thing he didn't come. Later, she was crying in her room and called her girl friend to tell her she'd been "stood up" and how awful she felt. The following Monday, she planned what she would say to the boy when she saw him at school.
2. There were two women in a ward, both scheduled to have amputations. One woman kept asking the nurses if she was doing the right thing by having the surgery done, and when encouraged to talk about her thoughts and feelings, she would begin to cry and hold the nurse's hand tightly to keep her there. The other woman maintained a stoic silence on the subject, said nothing related to the surgery, and only commented that it would be good to have it over with so that she could go home.

Following surgery, the first woman was able to get out of bed on her second postoperative day and was able to obtain relief from her pain with medication. She continued to talk about the loss of her leg but now related it to using crutches. The second woman refused to be turned in bed and required pain medication more frequently than was ordered. She became delusional for a short period of time.

3. A middle-aged man suffered a heart attack and was confined to bed on absolute bed rest for a period of at least one week. He was allowed up for use of the commode once a day only. He refused to allow the nurses to wash him and said, "There is nothing wrong with me except for a little indigestion." One nurse was adamant in telling him that he had had a very severe heart injury, and unless he stayed in bed, he could die.
4. A middle-aged woman had had her breast removed two months earlier for cancer. Although the physician felt he had successfully removed all malignancy, he wished to remove her ovaries and adrenal glands as sources of hormone production that

would stimulate the growth of the cancer cells. During her first surgery, the woman had been a "model" patient in that she never made demands on the staff, talked about her surgery freely, and never became emotional. During this surgery she was a different person. She was fearful of being operated on before surgery and cried and complained for several days following it. Her period of recovery was several days longer than expected.

5. A third-grade class visited an animal reservation where a freak accident occurred. A lion dug a hole underneath his fence and pulled a little girl from their class into his cage where he mauled her severely. She was hospitalized. The next day in class no one mentioned the incident. The students did not ask about her, and the teacher had decided not to bring up the subject unless one of the students did. Many of the parents noticed an increase in bedtime problems, bad dreams, bed wetting, and fears.

2. **Attend** a group discussion on "Nursing Process and Crisis Intervention." Share your reactions to the films and personal experiences you have had with crises. Bring questions that have occurred to you on this subject during the past few days and learn what others think and feel.

- Discuss the following questions in relation to the patients described in B-1.

Which of these methods of responding to a loss are considered healthy and which unhealthy? Why? What phases of grief are demonstrated? What loss is each person experiencing or anticipating? What would your nursing goals be for situations 2, 3, and 4? What difficulties would you personally encounter in helping each patient? Why? Are these long- or short-term goals?

What exactly would you say to each patient in order to be helpful? What will happen if a person cannot adapt to a loss? Why do you think the nurse in situation 3 was so abrupt? List nursing interventions for each patient.

- Role play situations 2, 3, and 4 after you have identified your nursing interventions. Don't expect to be perfect or know exactly what to say. Try some conversation and see how it sounds. Let group members make suggestions and try it again.

Role play situation 2 preoperatively as well as postoperatively. What feelings are you aware of as you role play each situation? Are some changes in body image easier to discuss than others? Why?

If the teacher in the class in situation 5 were your friend, what would you suggest she say to the students? Why is she remaining silent? What helpful actions could the parents take?

- How would you know if your crisis intervention had been helpful in situations 2, 3, and 4? What criteria can be used to evaluate?
- Is crisis intervention intended to be short- or long- term? Why?

3. **Videotape**, with another student, a nurse-patient conversation for one of the following situations:

Preparing a 50-year-old patient for surgery for removal of the prostate gland.

Helping a newly delivered mother with her disappointment at having her third boy when she was "so looking forward to a girl."

Caring for a 37-year-old man with a diagnosis of advanced cancer.

Critique the tape with your instructor.

**4. Plan for a clinical experience.**















- ▲ Select patients that have experienced or are going to be experiencing a loss. While caring for them, determine their responses to the loss and apply the theory you have been practicing. Write a NCP.
- ▲ Record your conversations and feelings immediately after leaving the patients' rooms. Share this in postconference.





## OBJECTIVES

### *Depression as a Response to Loss*

-    8. Differentiate between the cause and duration of grief and of depression.
-    9. Given a list of behaviors, select those that could indicate a depression.
-   10. Describe three nursing goals and at least three interventions that you might use when caring for a patient with a problem of depression.
-   11. Given a list of statements, select those that would be helpful to the depressed patient.
-   12. Chart a description of typical behaviors of a depressed patient, including one subjective and one objective observation.
-   13. Describe the action, use, side effects, and two appropriate nursing implications for the following groups of antidepressant drugs: MAO inhibitors and tricyclic compounds. (Complete drug cards on antidepressant drugs as directed by your instructor.)

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the times when you feel "blue" or sad. Or the times when a friend says, "You seem down in the dumps today." What does that observation do for you? Do you feel relieved that someone cares enough to notice and ask? What if you then start to tell your friend how you feel and your friend interrupts with, "Yes, I know exactly how you feel. Just last week the same thing happened to me. Let me tell you about it." How do you feel now? More alone and sad than before, plus having the added burden of having to politely listen to your friend's problem? Conclusion: *You don't make an observation unless you are prepared to listen! As nurses, we have the obligation to do both!*

#### COMMENTS ON DEPRESSION

*It is hard to listen to someone tell you how bad he or she feels. But it is a skill that you must acquire in order to care for patients with emotional illnesses. And depression is a real illness! It has reached almost epidemic proportions in our country. We're not talking about the blues that last only a day or two, but the deep-down, energy-draining bouts of gloom that drag on for several days to weeks and cripple the daily pattern of living (no energy to clean house or care for the children, unable to concentrate at work or school, unable to sleep at night). Probably each of us knows of someone who has had such a depression, whether or not it was recognized. The majority of these depressions result from a loss, from unresolved grief. And many result in suicide, divorce, or drug or alcohol addiction. Depressed persons often go unnoticed or untreated until too late. Yet the symptoms of depression are unmistakable, and a helping relationship is crucial in treating it. Learn the symptoms and ways to help, then look around you.*

2. **View** audiovisuals. Write down your immediate impression and feelings while viewing and listening to the films.

- "A House in the Woods (60 min, MDS) Family involved in emotional breakdown—depression.
- "Application of the Mental Status Exam" (12 min, UW), 1982 Simulated interview between a depressed patient and a nurse.
- "The Depressed Client" (30 min, AJN).
- "Depression: The Shadowed Valley" (60 min, 2 reels, TR, IU), 1975 Examines depression from mildest forms to suicide.
- "The Language of Depression" (29 min, G).
- "Nursing Intervention—The Admission Interview—The Depressed Patient" (29 min, GSA), 1975.
- "Loss and Grief" (CM).
  - 1. "Loss"
  - 2. "The Grief Process"
  - 3. "When Someone Is Grieving . . . Dramatic Episodes"
  - 4. "The Child Who Left Us: Amy, A Portrait of Peter"
  - 5. "A Sense of Place: John and Gwen, The Child Who was Let Go: Carol, The Empty Nest: Ruth"
- "Depression: Recognizing It, Treating It" (HRM)
  - "Part 1, Defining the Problem"
  - "Part 2, Psychological Perspectives"
  - "Part 3, The Physiology of Depression"
- "Depression" (CM).
  - "Faces of Depression"
  - "Signs and Disguises of Depression"
  - "Roots of Depression"
  - "A Nursing Challenge"
- "Solving the Riddle of Loss: Depression and Other Responses" (N)

3. **Read** about *depression, helplessness, hopelessness, suicide, and nurse-patient relationship* in psychiatric and pharmacology references.

#### **Book**

Robinson, Corinne H., Lawler, Marilyn R., and Garwick, Ann E., *Case Studies in Clinical Nutrition*, 2nd ed., New York, Macmillan, 1982, "Elderly Man with Depression," p. 45.

#### **Journal**

Rosenbaum, Marilyn, "Depression, What to Do, What to Say," *Nursing* 80, August, p. 65.

4. **Write** the difference between endogenous and exogenous depression. List nursing assessments and nursing interventions for a patient with a possible depressive disorder.

- What precautions can you observe that might prevent a possible suicide? Why is this important?

- Fill in this chart;

<i>Name of Drug</i>	<i>Action/Use</i>	<i>Side Effects</i>	<i>When Action Begins</i>	<i>Nursing Implications</i>
MAO inhibitor				
Tricyclic compound				

5. **Complete** the answers to the case study in Robinson et al. Insert the pages here and bring to your group discussion.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a group discussion on "Helping Persons With Depression." Discuss the relationship between depression and the following factors:

diet  
 exercise  
 age and stage of growth and development  
 fatigue  
 previous cultural experiences  
 religious or spiritual beliefs  
 physical environment  
 previous education  
 feeling of self-worth  
 personal values and goals  
 relationships with significant others  
 living environment: alone or with others  
 use of alcohol/drugs  
 employment/retirement

- How would holistic health advocates treat a problem of depression?
- There is a higher incidence of depression among women. Why do you think this occurs? What sociocultural influences might predispose women to having less coping ability? What are women doing to change this situation?
- How do you think the high unemployment rate affects the incidence of depression and psychophysiologic illness? Why?
- What is the relationship between developmental or maturational crises and depression? Describe some personal examples of depressive reactions.

- Break into groups of three to five students for 20 minutes. Create a short story or play to dramatize one of the persons described below. Include at least three examples of symptoms you expect.

Depressed mother at home with two young children and a newborn.

Woman grieving following a hysterectomy.

Depressed grandfather in the hospital, a recent widower.

Child grieving following a move to a new school.

Depressed teenager, male or female, in school.

At the end of 20 minutes, take turns presenting your story or play to the total group. Discuss how the behaviors would make you feel if you were a family member. Would you react the same as a nurse?

At the end of your presentation ask the group to list the symptoms of grief or depression that they recognized. Ask for a volunteer to write charting examples describing the behaviors. Decide whether each example is an objective or subjective observation by using the following definitions:

**Subjective** information comes from the patient or the patient's family.

**Objective** information comes from those caring for the patient and is a professional observation or measurement.

Take turns making statements that demonstrate each of the following goals of nursing care. Apply them to any of the situations.

1. Help person express angry feelings through talking.
2. Improve person's feeling of self-worth by recognizing own strengths.
3. Help the person recognize the event that caused the feelings.
4. Encourage a moderate level of activity even though it seems meaningless.
5. Accept the patients' feelings as being real and attempt to understand their point of view.

Add additional nursing goals you can anticipate from the symptoms presented.










## 2. **Plan** for a clinical experience.

- ▲ Talk with and care for depressed patients on a medical-surgical or psychiatric unit. Record your conversation with them, including your feelings. Write down their symptoms of depression.
- ▲ Observe the medications they are receiving. Learn about them. Can you detect any side effects? Complete drug cards.
- ▲ Identify and list your strengths and weaknesses in helping your patient. Date this evaluation and insert it into your LEGS binder so you can compare your self-evaluation at the end of Volume II to see if you have strengthened some of your "weaknesses."



## OBJECTIVES

### *Assisting the Patient in Coping with Death; Providing Postmortem Care*

-   14. List three reasons nurses find it difficult to assist people in expressing grief.
-   15. Given a list of statements, select the ones that could be used to help a patient begin adjusting to a loss.
-   16. Describe three coping behaviors that a nurse might recognize as adaptive responses to the diagnosis of a fatal illness; write a nursing intervention that would be appropriate and give your rationale.
-   17. Given a real or hypothetical patient who is dying, use the nursing process to help the patient emotionally and physically achieve a dignified death.
-  18. Describe the procedure followed in your hospital for the care of the body immediately after death: notification of family, nursing supervisor, and physician; and obtaining of permission for autopsy.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** what subjects you avoid in conversation. Do you ever discuss the death of your parents or loved ones? Do you ever find out how a mother feels who has just delivered a dead fetus? How about the single mother who has given her baby up for adoption? The patient who asks if he has a "tumor" can be easily "turned off" by a statement of reassurance. It is easy to avoid these painful subjects and leave patients to find other sources of help.

Why are these subjects so painful to us? Are we threatened by the possibility of seeing ourselves in our patients' places? What causes us to be so uncomfortable with these subjects and to be so unhelpful to patients? There is no easy answer to these questions. But we can begin to find our own answers. We must first recognize these reactions occurring in ourselves, then stop and look at our behavior, share it with other persons who are also looking for their own answers, and study what the experts in the fields of psychology and psychiatry have to offer us.

Think about your *true* feelings about the patient who is dying. Begin to do preparatory work toward the day that you will be caring for dying patients. Which of the following statements best describes your attitude?

\_\_\_\_\_ If I had a choice, I would not care for dying patients.

\_\_\_\_\_ I'm afraid I won't know what to say to a patient who is dying. If the patient asks me about his or her condition, I won't know what to say.

\_\_\_\_\_ I look forward to the chance to comfort a dying patient.

- \_\_\_\_\_ I think children should freely discuss death from the age of 4 or 5 years and older.
- \_\_\_\_\_ I think children should not be told about death until they are 8 or 9 years old.

## 2. View audiovisuals.

- "A Dignified Exit" (26 min, F), 1981.
- "A Dose of Reality" (16 min, AJN).
- "Children's Conceptions of Death" (29 min, AJN).
- "Death and Dying"
- "A Professional Approach" (TR).
  - "The Process of Grieving"
  - "Parents and the Loss of Their Child"
  - "The Elderly"
  - "The Hospice Concept"
- "Jocelyn" (28 min, F), 1980: An 18-year-old girl facing death.
- "The Long Valley: A Study of Bereavement" (51 min, FI).
- "Soon There Will Be No More Me" (10 min, CHF) The feelings of a young woman with cancer.
- "Until I Die" (30 min, UCLA, AJN), 1970.
- "What Man Shall Live and Not See Death?" (57 min, FI).
- "Winning Battles" (8 min, F), 1980: Involves the family in the treatment of a young cancer patient.
- "An Alternative Way to Care for the Dying" (24 min, UM), 1979.
- "Dying" (97 min, UMTV), 1976.
- "Facing Death" (30 min, TLV), 1980 Coping with serious illness.
- "Time of Death: The Impact of Dying Patients on Hospital Staff" (16 min, UM), 1978.
- "To Die with Dignity: To Live with Grief" (UMTV), 1978.
- "Health Care and the Terminally Ill" (CM).
- "Choices—An Introduction to Hospice"
  - "Psychological Reactions of the Dying Person"
  - "Guidelines for Interacting with the Dying Patient"
  - "The Grief Process"
  - "When Someone Is Grieving"
  - "Concerning Death"
- "Perspectives on Dying:" (CM).
1. "American Attitudes Toward Death and Dying"
  2. "Psychological Reactions of the Dying Person"
  3. "Hazards and Challenges in Providing Care"
  4. "Guidelines for Interacting with the Dying Person"
  5. "Viewpoint: The Dying Patient"
  6. "Viewpoint: The Nurse"
- "Pediatrics: Psychosocial Implications:" (CM).
1. "The Nursing Challenge"
  6. "Working with the Troubled Family"
  7. "The Dying Child: Focus on the Family"
  8. "The Dying Child: Focus on the Child"
- "Hospice: An Alternative Way to Care for the Dying" (26 min., UM), 1979.
- "Hospice" (13 min., UM), 1978.

## 3. Read about *death, terminal illness, postmortem care* in medical-surgical, growth and development, nurse-patient relationship, and psychology references.

Preview LEG X-A on care of terminally ill patients  
LEG XIII-B on care of children with a fatal illness.

### Books

- Blondis and Jackson, 1982, Chapter '7.  
Campbell, Claire, *Nursing Diagnosis and Intervention in Nursing Practice*, New York, Wiley, 1984.  
Look up death, dying, and spiritual distress in the Nursing Diagnoses Subject Index for help with nursing care plans.  
*Dealing with Death and Dying*, A Nursing '77 Skill Book, Horsham, Pa., Intermed Communications, 1976.  
Murray, Ruth B., and Zentner, Judith P., *Nursing Assessment and Health Promotion Through the Life Span*, 3rd ed., Englewood Cliffs, N.J., Prentice-Hall, 1985, Chapter 12 "Death, The Last Developmental Stage,"  
Smith and Duell, "Assisting the Client to Cope with Death," p. 775; "Providing Postmortem Care," p. 779.

### Journals

- Ferszt, Ginette G., "The Patient's Right To Cry," *Nursing* 84, March, pp. 65-68 (emphasizes helpful nurse behaviors).  
Geltman, R. L., and Paige, Roberta L., "Symptom Management in Hospice Care," *AJN*, January 1983, pp. 78-85 (major problems and day-to-day management).  
Taylor, P. B., and Gideon, M. D., "Holding Out Hope to Your Dying Patient," *Nursing* 82, February, pp. 42-45 (how to find and give the right kind of hope).  
"When A Patient Dies, Facing up to Grief—the Patient's, the Family's and Your Own," *RN*, February 1984, pp. 25-30 insert on 5 stages in the resolution of grief  
Franks, Laura C., "Does That Mean I'm Dying?" p. 25  
Telesco, Maria, "You Killed My Husband!" p.27  
Scheideberg, Donna, "How can You Be So Sure my Baby's Dead?" p. 29  
Kuntz, Barbara B., "I Didn't Think His Death Would Hit Me So Hard." p. 30.

### COMMENTS ON TIMETABLE FOR GRIEF

*There are three plateaus in the timetable for grief. Many people who grieve for a loved one wonder why they haven't "recovered" from their grief after a few months and, in fact, seem to be feeling worse. Knowing the normal timetable can be very comforting and reassuring for the grieving person and significant others in their lives.*

*First plateau: Numbness lasts several weeks to months. An emotional distance is kept from everyone, but much physical contact is needed. The person appears to function normally but it is mechanical.*

*Second plateau: Disorganization occurs around six months after loss. The person feels lonely, depressed, full of self-pity, and experiences hallucinations. There is a need for intimacy, for a chance to express feelings, and to acknowledge the impact of the loss. There may be a need to discuss the details of the death.*

*Third plateau: Reorganization usually occurs between seven and nine months or even several years after the death. The person can talk about his or her loss without tears, can rejoin life, and have a complete relationship with another person. There is occasional peacefulness.*



**4. Listen to a guest lecturer on "Hospice Care."**

Come prepared with questions about the philosophy of care, the types of care and treatments used in the patient's home and hospice or hospital, the members of the hospice team, and how a hospice can be started or, if one is present, supported in your community.

**B. PUTTING IT INTO ACTION!**

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**1. Check out materials on "Care of Body After Death" in your campus lab.** You will find the items used in your hospital and instructions for preparing the body for the mortuary. Read through the directions and become familiar with the tags, shroud, ties, and so on. Be aware of your feelings as you check out and examine the materials. How are you feeling now as you are reading this paragraph? A suppressed snicker tells the tale. There are feelings trying to escape whenever this highly charged subject comes to our conscious awareness. We all view death differently and yet in many ways the same. It is frightening, puzzling, elusive, incomprehensible, and therefore easier to try to ignore and avoid. It will help you and your patients if you will take this opportunity to examine *some* of your feelings, at least the ones on the surface. You might want to use these materials in a small group and sit on the floor in a circle, hold the items jointly, and share your past experiences with death. How does the body appear after death? After being prepared for burial? Why does the body look different once life has stopped than it did a few moments before when the heart was pumping and the alveoli were receiving and releasing air? What is death and when does it begin? What kind of religious or spiritual support can *any* nurse offer a patient?

- Following this experience, record your thoughts in writing and share them with your instructor.

**2. Attend a group discussion on "Care of the Dying Patient" after signing up to read at least one article on death.** By signing up, you will have less chance of repeating the same article. If you select a book, this may be broken into chapters or sections. Take notes on your article for sharing with the group.

Discuss your feelings, attitudes, and past experiences that have taught you about death. Use these questions to get you started if necessary.

- How have your feelings changed with age? Compare your concern about and acceptance of death as a final stage of life in your teens, twenties, thirties, forties, fifties and sixties. Do you imagine death seems as "real" when you are in your twenties as when you are in middle age?
- Do you think children should be told if a grandparent is dying? Should they be allowed to visit dying persons in the hospital? How would you answer the following questions:

"Is grandpa going to die?" (a 5-year-old)

"If we put Teddy (the hamster) in the ground, how does he get to heaven?"  
(a 7-year-old)

"Do children die?" (a 6-year-old)



- What will you say if a patient says, “I am waiting to die”? What is your initial reaction or response? What need does this patient have at this time? What therapeutic communication skills could you best use at this time? How can you assess the patient’s and family’s needs for spiritual assistance? What goals might be set for therapeutic intervention? How can you use the nursing process to help a patient achieve a dignified death? Contrast caring for a patient who has a written nursing care plan on his or her chart and one who has only a medical diagnosis, medical orders, and nurses’ notes. Which one would receive the best care? Which patient would you prefer to care for, if you had a choice? Why?
- What can you say and do for the family of a patient who is dying? What support do they need?
- How might the following *views toward death* be shown in the behavior of the patient, family, and nurse? Which stage of the grief process does each illustrate?

an adventure, a welcomed new experience

a way of showing vengeance to others and forcing them to give attention

an enemy who is to be fought to the bitter end

a friend who brings release from pain

an escape from an unbearable situation to a new life

a punishment for one’s sins and a way of atonement

a terrifying experience

- Imagine that you are caring for a patient who is dying. Her eyes are closed and she appears to be in a stupor. She is somewhat dyspneic and is breathing through her mouth. Profuse perspiration is present over her entire body and her feet and legs appear mottled. List three nursing actions that you will take to meet this patient’s needs and state your rationale.

How does a nurse or physician know that a patient is dying?

When does the reflex of swallowing cease when a patient is dying?

How can thirst be decreased when a patient can no longer swallow?

Why does a dying patient perspire profusely? What actions should the nurse take when this occurs? What accompanying body changes might be occurring? When is the sense of hearing lost? What is the “death rattle”?

Why do you flatten the bed, close the eyes, replace the dentures, and position the jaws after death? What other actions do you take to prepare the patient’s body for viewing by the family after death and before preparing the body for the mortuary?








- What behavior will you encourage in your nursing assistants when they are assisting you in preparing a body for the mortician? How will you feel and what will you say and do when you are preparing a body for the first time and your nursing assistant has obviously done it many times? What if the roles were reversed and it was the assistant’s first time—what would you say and do then?

**3. Plan for a clinical lab.**

- ▲ Care for a patient with a terminal illness. Identify in writing the behavior that is being used by the patient, family, and yourself to cope with the prognosis. Write a process recording of an interaction with the patient and/or the family and a nursing care plan.
- ▲ Talk with nurses about their experiences with dying patients and death. Ask them what questions the patients and family ask and how they answer them, how they feel about caring for patients who are dying, and how their staff reacts both before and after death occurs. (This conversation might best be held in a relaxed, unscheduled atmosphere such as during a coffee break.)
- ▲ Attend or organize a nursing conference to set up or bring up-to-date a nursing care plan for a patient with a terminal illness. Identify the problems that are present for both the patient and the staff and make decisions on ways to solve them. Encourage group participation in order to improve the follow-through on the plan when it has been put into action.
- ▲ Find out what the procedure is in your hospital for care of the body after death, what forms need filling out, who calls the family if they are not in attendance and what is said over the phone, who notifies the physician, who obtains the autopsy permission and what is said, who needs to be notified in the nursing office, and so on.
- ▲ Visit the morgue in your hospital and look at a body prepared for the mortician. Where are the valuables, dentures, and so on kept that are to appear on the body when it is prepared for viewing?

## OBJECTIVES

### *Disturbed Coping Patterns: Psychoneurosis and Psychophysiologic Illness*

-  19. Given a list of statements, select those that are true about neurotic disorders.
-  20. List five classifications of neurotic disorders according to the DSM III Classification by the American Psychiatric Association (APA) and describe an example of a disorder in each. 
-  21. List four nursing interventions for patients with anxiety, somatoform, and dissociative disorders. 
-  22. Given a list of statements, identify which are current definitions of the term psychophysiologic illness.
-  23. Describe the action, use, side effects, and two appropriate nursing implications for anti-anxiety (minor tranquilizing) drugs. (Complete drug cards on minor tranquilizers as directed by your instructor.)

[Note: Major tranquilizers will be studied in LEG IX-A.]

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think** about how you cope with everyday problems. In Volume I you learned about healthy ways of coping with anxiety and stress. Did you learn something about your own patterns of behavior? Did you find out that you liked some of them more than others and, in fact, that some of your ways of coping were downright awful? We are all on a continuum of growth and are maturing and learning better ways of dealing with conflict as we age. With these Objectives you will learn about *disturbed ways of coping* with anxiety that do not bring satisfaction, but, instead, bring increased pain and distress. You will be introduced to the concept of mental illness as a behavioral pattern that causes distress and disability. For many years theorists distinguished between neuroses as minor illnesses and psychoses as major ones. The newer classifications no longer make this distinction. The newer DSM III Classifications by the APA use five categories to include all the disorders previously called neuroses.

2. **Read** about *psychoneuroses, somatizing, panic, disturbed coping pattern, psychophysiologic stress, anxiety, conflict, mental health, mental illness, reality therapy, behavioral therapy, ritualistic behavior, defense mechanisms, mental maturity, psychosomatic illness* in psychiatric, pediatric, medical-surgical, geriatric nursing and psychology references.



## Books

- Sorenson, Karen Creason, and Luckmann, Joan, *Basic Nursing: A Psychophysiologic Approach*, Philadelphia, Saunders, 1979, Chapter 7, "Psychosomatic and Somatopsychic Illness"; Chapter 8, "Treatment of Psychosomatic Disorders."
- Wilson, Holly S., and Kneisl, Carol R., *Psychiatric Nursing*, 2nd ed., Menlo Park, CA, Addison-Wesley, 1983, Chapter 14, "Disturbed Coping Patterns; Nonpsychotic Clinical Syndromes"; Chapter 17, "Medico psychiatric Disorders."

## Journals

- DeGennars, M., et al., "Antidepressant Drug Therapy," *AJN*, July 1981, pp. 1304-1310.
- Harris, E., "Dexamethasone Suppression Test," *AJN*, May 1982, p. 784.
- Snyder, Joyce C., and Wilson, Margo, "Elements of a Psychological Assessment," *AJN*, February 1977, p. 235.
- Tichy, A. M., and Chong, D., "When Assessing the Aged, Don't Be Fooled by Those False Alarms," *RN*, September 1981, p. 58.

Review child growth and development, especially during the toddler and preschool years. Look for the emergence of defense mechanisms and how the child's level of anxiety and degree of parental influence affect the way the mechanisms are used to maintain control through later life.

## COMMENTS ON MENTAL ILLNESS

*As you read about mental illness and child development, you will notice the complexity of causes and influences on the final product, the adult person. How easy it is to read and understand about physical illness and list the nursing care needed. If you compare several books, you may find that the trend in psychiatric nursing references is to group patients by the behavior they exhibit instead of by the names of specific diagnoses. For these reasons we caution you not to be discouraged as you read and fail to find ready answers to your questions or clear-cut definitions. This is part of the evolving body of knowledge about mental illness. The Objectives are intended to lead you into an area of illness that is widely seen both in and out of the hospital.*

*You will recognize many of the behaviors in yourself and might wonder if you are mentally ill. This is the beginning of your awareness of the continuum between mental health and illness. Why are you healthy when someone else with the same but more exaggerated behavior is ill?*

*What determines the degree of wellness? These are fascinating and at the same time threatening questions to ask. It may be frightening to look (closely) at yourself. This is the time to use small group discussions and your instructor to help you understand yourself and others.*

### 3. View audiovisuals.

- "Anxiety: Concept and Manifestations" (30 min, AJN).
- "Crisis Clinic" (15 min, SZ).



"Sounds of Anger, Echoes of Fear" (54 min, AJN).

"Tranquilizers" (29 min, USC).

"Just Be Patient" (20 min, UM), 1975.

"Psychosomatic Disorders: (HRM).

I. "What Psychosomatic Means"

II. "Causes and Symptoms"

III. "Mind over Matter"

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Write the effects of anxiety that may occur to the body systems listed. The first listing is an example.

<i>Body Systems</i>	<i>Immediate Effect of Anxiety</i>	<i>Chronic Effect of Anxiety</i>
gastrointestinal system	heartburn, cramps	peptic ulcer
musculoskeletal system		
respiratory system		
integumentary system		

Write the answers to the following questions in preparation for your discussion.

- What is the difference between a functional illness and a psychophysiologic illness?
- In your own words, describe how anxiety causes disturbed coping behavior.
- Give six examples of emotional symptoms of excessive anxiety that can incapacitate a person. Next to each example try to write which defense mechanism is being used.

2. Write an example of a behavior and a nursing approach for each disorder and bring to the group discussion.

### Anxiety Disorders

- Phobic disorder
  - agoraphobia with or without panic
- Anxiety states
  - panic disorder
  - generalized anxiety disorder
  - obsessive-compulsive disorder

### Factitious Disorders

### Somatoform Disorders

- Somatization disorder
- Conversion disorder
- Psychogenic pain
- Hypochondriasis

### Dissociative Disorders

- Psychogenic amnesia
- Psychogenic fugue
- Multiple personality
- Depersonalization disorder

### Psychosexual Disorders

- Gender identity disorders
- Paraphilias
- Psychosexual dysfunction

**3. Attend** a lecture group discussion to share your information on “Anxiety and Neuroses.” Apply your information to the following patients.

Which of the following persons have symptoms of anxiety? How do they each deal with their anxiety?

Johnny, age 9, skips to school each day but is very careful to avoid stepping on a crack in the sidewalk. If he does, he repeats a poem.

Bill, age 25, is unable to get the job he desires because it would involve crossing a high bridge, and he is “deathly” afraid of heights.

Jean, age 45, is invited to attend a bridge club, but when the first day to meet comes around, she is incapacitated with a severe headache and is unable to attend.

Jacob, age 75, a recent widower, is physically well, yet is uninterested in doing anything but sitting at home. He talks about a variety of illnesses that he could be getting and has very little interest in food. He has stopped reading the newspaper and talking with his neighbors.

- How do defense mechanisms help a person handle anxiety?
  - What is the difference between
    - normal fear and a phobia?
    - obsession and compulsion?
    - factitious and somatoform?
  - When do neuroses become a problem for patients?
  - What guidelines should the nurse follow when planning nursing care for patients with ritualistic behavior or patients with physical symptoms that have no organic cause?
  - How can the nurse help the patient with an organic neurosis? Give examples.
  - Complete a nursing care plan using the nursing process for a patient with a specific disorder from the list in B-2.
  - What are the dangers of using minor tranquilizers over a long period of time? What alternatives are there to drug therapy?
4. **Plan for a clinical experience.**
- ▲ Look for patients taking medications listed in Objective 23. Visit and observe them. Study their charts for evidence of side effects. What precautions would you take when caring for these patients to prevent injury to them? What dietary restrictions would you take? Whose responsibility is it to teach them about their drugs?
  - ▲ Practice describing the behavior of the patients you care for, including both objective and subjective observations.





# LEG VI-A

## Crisis, Grief, and Psychoneurotic Problems

### HAVE I LEARNED?

The following questions are for you to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VI-A are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the “doing” Objectives. Use a separate sheet of paper for these answers, then use the answers in clinical or campus lab for your own evaluation.

#### *Objectives*

#### *Questions*

1

1. The student spent about 20 minutes with Mrs. Jensen giving her morning care. Which of the following descriptions would show that the student was attempting to have a therapeutic relationship with Mrs. Jensen?
  - (a) The student asked Mrs. Jensen how she slept, what she ate for breakfast, if she had any visitors, and if she had gotten out of bed the evening before.
  - (b) Mrs. Jensen told the student a joke and then they discussed the Phil Donohue show that was on the TV set at the time. The subject was food and they shared some favorite recipes.
  - (c) Mrs. Jensen commented that she had had trouble sleeping last night. The student replied, “You feel tired this morning because you didn’t sleep much.” The patient then described her problem of insomnia at home, which was especially pronounced since her husband passed away. Using active listening skills and some probing, the student discovered that this was a source of great concern for the patient at home. Together they discussed conditions related to the problem.
  - (d) Mrs. Jensen was very irritable when the student came in to give her a bath. She complained of the “lousy” food, noise at night that kept her awake, and the length of time she had to wait for someone to answer her light. The student listened politely, explained that she should have asked for another sleeping pill before 3:00 A.M., and that the floor was temporarily short-staffed due to vacations.

2

2. When the nurse admitted a 72-year-old woman to the hospital for cataract surgery, a psychosocial assessment was done for which of the following reasons:
  - (a) To recognize the presence and effect of stress in the patient’s present life.
  - (b) To identify significant others or a social network in the patient’s life.

- (c) To evaluate her mental status.
- (d) To obtain a medical history
- (e) To recognize the patient's stage of maturity.
- (f) To learn about religious, racial, cultural, and ethnic identification and beliefs.

3

3. From the following list of events, select those that could be crisis events and state why:
- (a) marriage
  - (b) pregnancy
  - (c) children starting school
  - (d) children leaving home for college or to be married
  - (e) elective surgery
  - (f) surgery that changes your body such as prostatectomy, hysterectomy, amputation, or radical mastectomy
  - (g) illness that changes your body image such as heart attack, stroke, arthritis, or any chronic disease
  - (h) admission to the hospital as a patient
  - (i) retirement
  - (j) terminal illness of yourself
  - (k) terminal illness of a loved one
  - (l) failing a test
  - (m) loss of a loved one by death
  - (n) losing a job

4

4. Mr. Graves, age 76, had been living with his married daughter since his wife died four years ago. He was hospitalized because of a stroke last month and needs considerable assistance in his daily activities. The family decided to place him in a nursing home nearby where he could receive the care he needed and they could visit frequently. Which of the following statements best describe *why* Mr. Graves and his family require crisis intervention at this time.
- (a) The incidence of later mental disorders may be reduced by providing therapeutic intervention to people while they are in crisis.
  - (b) The adjustment process cannot be completed satisfactorily without outside help.
  - (c) The person undergoing the crisis event needs to be allowed to express his feelings during each phase of the process.
  - (d) The person needs to be given outside interests until the crisis event has passed.
  - (e) This period presents an individual with an opportunity for personality growth but also with the danger of increased vulnerability to mental disorder.

5

5. Describe how Mr. Graves could respond to this crisis event in his life in (a) a healthy manner and then (b) in an unhealthy manner, and state the long-range consequences of each.

(a)

(b)

6

6. Mrs. Phillips had radical surgery for cancer of the right breast. Following surgery, she avoided looking at the dressing or wound during dressing changes. She never discussed her surgery with the nurses or appeared upset. She spent her days reading and watching TV.

(a) List at least three observations you would make of Mrs. Phillips that would be relevant for a crisis assessment.

(b) Describe at least three items of information you would need in order to begin a nursing care plan.

(c) Which of the following analyses or nursing diagnoses might be valid for Mrs. Phillips?

1. Failure to express sorrow at the loss of her breast and change in body image related to loss of breast manifested by failure to discuss surgery with others and reading and watching TV instead.
2. Inability to talk with new persons about personal matters.
3. She misses her family, friends, and familiar belongings.
4. Poor adjustment to the hospital routine.

(d) Which of the following nursing goals would be of prime importance for Mrs. Phillips?

1. To include the family in much of her care.
2. To increase her physical activity.
3. To help her become aware of her emotional needs.
4. To teach her self-care of her incision and dressing.

(e) List one or two other goals that would be appropriate at this time.

(f) Which of the following nursing interventions would be most helpful in implementing your goals?

1. Confronting her with the need to face her problem more directly in order to prevent future depression.
2. Saying, "It must be hard to realize that you've had surgery or that your breast has been removed."
3. Providing privacy.
4. Asking her if she had any questions about taking care of herself at home.

(g) List several other nursing interventions that would help you implement the goals.

- (h) Which of the following criteria would be most important in evaluating your goal in question?
  1. The patient's amount of daily physical activity.
  2. The husband's interest in helping care for the patient after discharge.
  3. The amount of crying observed.
  4. The ability to express both positive and negative feelings about the surgery.
- (i) List other criteria you could use for evaluating the patient's progress.

- 7                    7. Which of the following behaviors can normally occur during grieving?
- (a) crying
  - (b) indifference
  - (c) anger
  - (d) feelings of guilt
  - (e) joy
  - (f) wish to commit suicide
- 8                    8. What are the differences in the cause and duration of grief and of depression?
- 9                    9. Which of the following behaviors that describe patients could make you suspect that person might be depressed?
- (a) "... did not want to eat for several days."
  - (b) "... skipped one meal."
  - (c) "... had difficulty sleeping for two nights in a row."
  - (d) "... complained of insomnia for the past two weeks."
  - (e) "... sits in his room and never talks unless spoken to directly."
  - (f) "... greets each person who enters the room with a cherry hello but is found crying late at night by a nurse."
  - (g) "... is depressing to be around, saying things are hopeless."
  - (h) "... won't even make her own bed; says she's not up to it and can't do it right anyway."
  - (i) "... takes a long time to answer any question."
  - (j) "... takes no interest in fixing her hair or putting on makeup."
  - (k) "... complains and acts cranky. He used to be so nice."
- 10                   10. You are having your clinical experience in a nursing home one week and see that your previous patient, Mr. Graves (see Question 4) is a resident. The nurse tells you that he is not doing well. He is eating poorly, sleeps most of the day in his chair, and has numerous complaints about his bowels not moving. He refuses to bathe or dress himself without a great deal of assistance or to walk to the bathroom. He prefers to remain alone in his room. At night he urinates in his bed instead of putting on his light. He cries when the night aide comes in to change



him. The physician diagnoses his condition as a depressive disorder associated with his stroke.

List at least three nursing goals and nursing interventions you would include in your care plan for Mr. Graves related to his depression.

- 11
11. Which of the following statements would be helpful for a nurse to use with a patient in an acute depression?
- (a) "You feel that there is nothing to look forward to, and you don't know how to change that feeling. Having to think about living without your wife is such a terrible thought, you can't even let yourself think about it."
  - (b) "Your dinner will be ready in a few minutes. It will be necessary for you to get out of bed and sit in the chair to eat. I know you don't want to get up, but I will help you."
  - (c) "It will do you good to get out of bed more. There is no reason for you to stay in your bed all day. The more you get up, the sooner you can go home."
  - (d) "You must feel very unhappy. You want someone here in the room with you, yet we never seem to find out what is really bothering you. Maybe you feel caught in a problem and don't know how to change it."
- 12
12. Write a charting example that describes the behavior of a person who is depressed. Include one subjective observation and one objective observation.
- (a) Subjective:
  
  
  - (b) Objective:
- 13
13. List two drugs in each of the following classes of antidepressants, their action and use, three side effects for each class, and the nursing implications.

<i>Drugs</i>	<i>Action/Use</i>	<i>Side Effects</i>	<i>Nursing Implications</i>
MAO Inhibitors			
Tricyclics			

14

14. List three reasons nurses might find it difficult to assist the following patient to express his feeling of grief over the loss of his leg: Mr. Stone, age 46, is a diabetic and developed gangrene in one of his toes several months ago. The infection spread, and amputation of the lower leg was advised in order to stop the process and promote healing. It is now three days postoperative, and Mr. Stone is asking for pain medication frequently before he is allowed to receive it and very often wets the bed because he cannot reach his urinal or spills it. The nursing staff has not talked with Mr. Stone about his feelings, about how he sees this amputation as changing his image of himself as a man and as a bread winner at home.

(a)

(b)

(c)

15

15. Which of the following statements could a nurse make in order to help the patient, Mr. Stone (Question 14), begin to adjust to his loss?

(a) "Do you have hospitalization insurance, or will you have to pay the cost of this surgery, Mr. Stone?"

(b) "It must be hard to realize that this surgery, which removed your foot, has really happened to you."

(c) "Having this happen to yourself must make you want to strike out at the world."

(d) "I wonder if you feel bad inside and maybe even wish you had never consented to the operation."

(e) "You will probably feel better if you would start getting out of bed more often."

(f) "Tomorrow the physical therapist is going to measure you for crutches so you can start getting around again. Then you can start making plans to go home."

16

16. Describe three behaviors that show that a person is coping with a diagnosis of a fatal illness for him- or herself or for a family member, a nursing intervention and a rationale for the action.

17

17. Write a nursing care plan for a patient who is dying. Use the five steps of the nursing process to help meet the patient's emotional and physical needs.

18

18. Imagine that you are the night nurse and one of your patients dies at 5 A.M. The death is expected by the physician and family. No family member is present. Describe the procedure that you will follow to accomplish each of the following:

care of the body immediately after death

notification of the family, the nursing supervisor, and the physician

obtaining of permission for an autopsy

19

19. Which of the following are true statements about neuroses?
- (a) A neurosis involves complete disorganization of the personality.
  - (b) Persons with neuroses usually have insight.
  - (c) Persons with neuroses usually have hallucinations.
  - (d) Persons with neuroses use suppression and repression to deal with conflicts.
  - (e) Neurosis does not inhibit normal developmental and peer relationships.
  - (f) In neurosis there is no thought disorder.

20

20. List five classifications of neurotic disorders according to the DSM III Classification and describe an example of a disorder in each.

21

21. List four nursing interventions you would take while caring for the following patient with a disturbed coping behavior.

Mrs. Slaker, age 46, was admitted for diagnostic tests for complaints of chronic fatigue and backache. She was treated with bed rest and mild analgesics. When the tests revealed nothing physically wrong with her, she was discharged. Two months later she was readmitted with functional paralysis of her lower extremities. The tests again revealed no physical cause for the paralysis, and the diagnosis of conversion disorders was made.

22

22. Select from the following descriptions the one that best explains the current medical opinion of the relationship between an organic disease and the psychological status of a person.
- (a) Psychological factors can cause physiological changes in the body that are either temporary or permanent.

- (b) Psychological factors can cause temporary physiological changes in the body that are always reversible.
- (c) Psychological factors can cause irreversible structural changes in the body.
- (d) There is no relationship between structural changes in the body and the psychological status of a person.

**23**

**23.** Write two side effects of the minor tranquilizing drugs and list two drugs in this classification.



## LEG VI-B

### Stress, Adaptation, and Diabetes

# WHAT WILL I LEARN?

In your first **Regulatory LEG (VI-B)** you will review stress and how stressors affect the human body. In discussion groups you will consider many types of stressors, how they affect you as an individual, how you react to stressors, and how physiological and psychological stressors can make a well person ill. Think about the stress of Volume II! How will this affect you? Fight or flight? A constant state of readiness to work, work, work, or just put it off until tomorrow? You may find out some very interesting things about yourself as you study stress.

Hospitalization is a multiple stressor with all its rules, diagnostic tests, and medical and surgical treatments. One nursing goal is to help individuals cope with the stressors before they become crises, to maintain a patient in a regulated (homeodynamic) level.

**Review LEG VI-A.** Crisis, stress, and anxiety are all related and interrelated in a person's feeling of wellness and illness.

**Diabetes mellitus** is a chronic disease that can affect any and all age groups. It is a regulatory dysfunction of the pancreas involving the hormone insulin. Symptoms of diabetes mellitus can be classic or disguised, sudden or insidious. It won't take long before you are alert to even the most convert signs and symptoms.

Diabetes affects persons of different ages in different ways. Patients with juvenile diabetes require different care and teaching than do older persons who have the disease. Most persons with diabetes manage their disease without hospitalization. Time in the hospital is for diagnosis, adjusting medication, and teaching self-care.

Many diabetic patients are hospitalized for other reasons such as surgery or heart disease. Diabetes can be mildly or severely complicating to other medical or surgical conditions. You must learn what diabetes is, why it does what it does, how to recognize and prevent complications, and how to help patients help themselves.

This is your first LEG to study and apply the nursing process to patients experiencing alterations in metabolism. Patients need to be involved in their own care and make their own decisions because this is a chronic illness. Take the initiative to teach your patients how to help themselves lead healthy lives.

**The Content of the Objectives for LEG VI-B is:**

- Stress and Charting (1-3)
- Living with Diabetes (4-9)
- Testing Urine and Blood (10-13)
- Pharmacology (14-17)
- Preventing Complications (18-21)
- Community Resources (22)

## WHAT'S AHEAD IN LATER LEGS

There will be more on helping persons cope with stress, for example:

LEG VII-C—*stress and the coronary patient.*

LEGS VII-B and VIII-C—*gastrointestinal problems.*

LEG IX-A—*nursing intervention for patients with long-term emotional and physical illness; working toward restoring persons to highest level of wellness.*

LEG XI-A—*complications of pregnancy.*

LEG XIII-C—*hyperglycemia.*

## OVERVIEW OF LEARNING EXPERIENCES IN LEG VI-B

<i>Objectives</i>	<i>Campus Lab Practice</i>	<i>Group Discussions/Lecture</i>	<i>Clinical Lab Focuses</i>
1,2. Alterations in reactions to stress 3. Charting		B1. Stress, stressors, you and your patients	B5. Look for signs of stress Evaluate charting Obtain nursing audit checklist
4. Actions of insulin and glucagon 5. Types of diabetes 6,7 Signs, symptoms, and life-styles 8,9 Diet history, planning and teaching (H)		A5. Interview a dietician B2. Teaching diabetics GES Objective 9	B3. Give morning care to diabetic patients Help patients with diets Care for patients who have had diabetes a long time
10-13. Testing blood and urine		B1. Preparing diabetic patient for diagnostic tests GES Objectives 10-12	B2. Collect urine specimens Test specimen for sugar and acetone Assist with glucose tolerance test Teach or observe patients testing urine and blood
14-16. Pharmacology 17. Teaching insulin administration (H)	B1. Insulin measurement B2. Teaching persons to give insulin (role play) or oral hypoglycemic drug	A4. Patients on insulin GES Objectives 16, 17	B6. Administer insulin Administer insulin according to a sliding scale Find out hospital insulin policy
18. Hypo- and hyperglycemia 19-20. Preventing complications of diabetes and nursing actions 21. Sexual dysfunction		B2. Signs and symptoms and nursing intervention	B6. Look for insulin reaction and symptoms of diabetic acidosis Plan for teaching self-care to a diabetic patient Care for diabetic. Write a nursing care plan
22. Community resources for diabetes			B1. Visit local ADA B2. Attend special classes for diabetic patients

# NEW TERMS AND ABBREVIATIONS

acidosis	insulin
adaptation	insulin-dependent diabetes
adult-onset diabetes	insulin reaction
alpha cells	juvenile diabetes
beta cells	ketoacidosis
cachectic	ketonuria
carbohydrate metabolism	ketosis
corticosteroid	Kussmaul respirations
cortisone-glucose tolerance test	maturity-onset diabetes
dyspareunia	need deprivation
fasting blood sugar	non-insulin-dependent diabetes
fractional urine test	polydipsia
glucose tolerance test	polyphagia
glycosuria	polyuria
HHNK	postprandial
homeostasis	pruritis vulvae
hormone	retinopathy
hyperglycemia	sliding scale
hyperinsulinism	Somogyi effect
hypoglycemia	stressor



# OBJECTIVES

## *Stress and Charting*



1. *List three examples of the body adapting (maintaining homeostasis) to environmental stress in relation to psychologic reactions and physiologic reactions.*



2. *Given descriptions of patients experiencing stress, identify at which stage of adaptation each person is: alarm reaction, stage of resistance, stage of exhaustion.*



3. *Given an example of charting, identify which of the following categories is missing: nursing assessments; nursing interventions given; patient responses or behaviors.*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** what stress means to you. How do you cope with the wear and tear of living? Stressors are the factors in life that require us to make adjustments, sometimes even to survive. List some stressors that you know cause you to adjust. For example, anxiety, is a stressor. How do you react to too many stressors or pressures of living? Stressors and your body's ability to cope physically and mentally make the difference in your feeling well or ill. Patients have moved from wellness to illness.

2. **Write** the definition of homeostasis as you find it in the dictionary. Write your own thoughts about the meaning of homeostasis to you as you maintain health. After you have read and have met the Objectives in this group, write a comparison of your understanding of homeostasis.

Homeostasis:

Dictionary definition

Your first impression

Later impression

3. **View** audiovisuals.

"Problem-Oriented Medical Record" (30 min, AJN).

"Managing Stress" (33 min, MH, UMTV), 1979.

- "Learn to Live with Stress" (24 min, UIL), 1975.
- "Less Stress" (14 min, UIL, UM, CHF), 1979.
- "Stress: A Personal Challenge" (30 min, UIL), 1980.
- "Stress: Are We Killing Ourselves?" (15 min, UIL, UM), 1979.
- "The Stress Mess" (25 min, UIL), 1982.
- "Stress in the Later Years" (CHF), 1983.
- "Relationships and Stress" (30 min, TLV), 1980.
- "Heart Attack—Prevention" (19 min., USC), 1978; stress and change in life style.
- "Stress: 8 modules" (CM).
  - "Stress: A Fact of Life"
  - "Sources of Stress"
  - "Stress: The Body's Response"
  - "Stress: A Nursing Concern"
  - "Stress and Disease, Parts 1 and 2"
  - "Managing Stress, Parts 1 and 2"
- "Managing Stress, Anxiety and Frustration" (HRM).
  - Part 1, "What Is Stress?"
  - Part 2, "Stress and the Body"
  - Part 3, "Relaxation Techniques"
  - Part 4, "Life-Management Skills"

**4. Read fundamentals, medical-surgical, psychiatric, pediatric nursing references on *stressors, stress, need deprivation, homeostasis, adaptation, psychological stress, anxiety, nursing process, and charting.***

Review LEG II-A on stress and charting.

**Books**

- Narrow, Barbara W., and Buschle, Kay Brown, *Fundamentals of Nursing Practice*, New York, Wiley, 1982, Chapter 6, "Stress and Adaptation Theory," pp. 57–65 (includes Social Readjustment Rating Scale to rate commonly experienced life changes).
- Smith and Duell, 1982, pp. 95–108 (on charting); pp. 219–234 (on stress).

**Journals**

- Bellack, Janis Peacock, "Helping a Child Cope with the Stress of Injury," *AJN*, August 1974, p. 1491 (an old article but good on verbal and nonverbal responses to stress of different ages).
- Jasmin, S., "The Art of Managing Stress," *Nursing 81*, June, p. 53.
- Meissner, J. E., "Measuring Patient Stress with the Hospital Stress Rating Scale," *Nursing 80*, August, p. 70.

**5. Identify the alarm reaction, stage of resistance, and stage of exhaustion for the following patients:**

Marion Faul received a fractured humerus when she fell down the stairs. She also bumped her head and was “knocked out” for a few minutes. When she came to, she realized that her left arm was painful and beginning to “swell.” However, she dismissed this as a bruise and rested at home until late evening, when she realized she was unable to sleep and aspirin was not helping the pain. At this point she called her physician. She told him she “felt too faint” to drive to the emergency room.

Mike Nelson had a speech to give to his class. He had not volunteered but finally did agree to write and give the paper. As he worked on it, he became very unsure of its merits and of his own ability to deliver the paper. As he began to memorize the words, he realized that he was unable to remember whole sections. Panic set in; he couldn’t eat or sleep. . . .

Mr. Asman woke up with a “cold” after a weekend fishing trip. By the end of that day it was worse, and he complained of wheezing and sat up most of the night. He took home remedies for the cold, and by morning he was extremely weak and realized he needed more than “cold pills”. . . .

Mrs. Sucar has had diabetes mellitus for many years. She has learned to live with the disease and with very minimal complications. She tests her urine daily and watches her diet. Her daughter is getting married and she is very busy with wedding plans and showers. She notices that her urine has become more orange than blue when tested. She tries to compensate by taking a little more insulin and watching her diet. . . .

*[Note: If you are unfamiliar with some of the terms in these situations, look them up. Mrs. Sucar leaves you in doubt as to the outcome. Finish the story any way you wish but identify the stages.]*

Bring your answers to the group discussion (B-1).

## FACTS ABOUT STRESSORS AND ILLNESS

Stressors are factors that tax an individual’s adaptive capacities. How one individual reacts to a particular stressor compared with how another person is affected by the same stressor is determined by:

- How suddenly the stressor happens;
- How long the stressor lasts;
- How forceful the stressor is; and
- The individual’s own limitations and capabilities.

These factors show us how important the history (both nursing and medical) is for a patient. For example, heredity, past experiences, and successes and failures all influence an individual’s adaptive mechanism.

Illness is characterized by:

- Lack of energy in both mind and body;
- Feelings of uncertainty;
- Loss of private or unique abilities;
- Loss of routine way of life and personal involvement.

Independent nursing actions can help a person conserve energy, help with feelings of security, and create situations that keep persons private and uniquely involved in the business of getting well.

You won’t always “read” your patients right, but now is the time to begin. You are the one who can help each patient help him- or herself.

## FACTS ABOUT CHARTING

Charting is the method used to pass objective and subjective information from person to person, shift to shift, involved in the care of each patient. The information charted must be clear, concise, meaningful, comparative, and accurate.

There are excellent tools to chart a patient's progress from illness to wellness—the highest level that can be attained. Whatever type of charting forms are used in your hospital, information can be recorded in such a way as to be a very valuable tool in improving nursing care.

For each problem that is identified, your charting should include all of the following:

### *Example:*

Where?	Location	Low back pain
When?	Date of onset	Continuous
Why?	Patient view of cause	Moved abruptly
How much?	Severity, intensity	"Can't stand it anymore"
What kind?	Quality	Sharp, stabbing pain in back radiating down right leg
Better or worse?	Change over time	"It's not getting any bet- ter"
What worked before?	Previous treatment and success	"It goes away if I lie still"

- Observations must be recorded as they happen without waiting to summarize so that details and sequence will not be forgotten later.
- Additional information should be added; information already recorded should not be repeated.

Look at your own chart forms and think how you can use them in the most efficient manner.

## **B. PUTTING IT INTO ACTION!**

1. **Attend** a small group discussion on "Stress, Stressors, You and Your Patients." Bring the list of stressors from Learning Experience A-1. Prepare for this discussion by reading one chapter from a book and one article, preferably on stress and children, and viewing one audiovisual.

One purpose of this discussion should be to find out more about stressors and your own responses so that you can recognize stages of adaptations for your patients of all ages and be better able to help them cope.



Discuss specific examples of nursing actions for the persons in the situations in LEG VII-A, Objectives 1–3. Learning Experiences B-1, and LEG VI-C, Objectives 12–18, A-5 for each of the 12 nursing actions listed below. Go through each of the 12. Make up whatever is necessary about the patient to create the need for an appropriate action. Give your rationale and make each action especially appropriate for how you believe that person must feel.

### NURSING ACTIONS THAT HELP PATIENTS COPE WITH STRESS

1. Appearing to know what to do
2. Ability to assess the situation quickly and initiate action quickly
3. Taking over when the patient is overwhelmed and knowing how to do the right thing
4. Being there when needed (patients feel loss when staff is rotated and a “favorite” nurse is no longer there)
5. Keeping patient informed not only about what is being done and why but also about time spent with patient and when nurse will return
6. Finding out what the patient expects and helping to correct misunderstandings
7. Encouraging patient to help him- or herself
8. Helping patient become aware of even small gains
9. Modifying behavior so patient knows nurse is sensitive to and concerned with feelings
10. Taking care of personal belongings and environment
11. Paying attention to what is important to patient, such as right to privacy
12. Keeping informed about changes in therapy—keeping up the nursing care plan

2. **Practice** charting nurse’s notes for the following situation. Compare your charting with that of another student. Include charting categories: *nursing assessments*, *nursing interventions*, *patient responses*, and *patient behavior*.

#### *Summary of 8–11 A.M. Clinical Experience*

Miss Brown, freshman nursing student, arrived for nursing lab at 8:00 A.M. She was introduced to Mrs. Smith, the team leader, who gave her information about Mr. Coles, the patient she was to care for during lab. The information Miss Brown received about her patient was as follows:

1. Mr. Coles had been in the hospital a week because of a back injury.
2. He could be up to the bathroom with crutches.
3. He continued to have pain in his low back and right leg.
4. He was to have an aqua-K pad to his back when he was in bed.
5. He needed some assistance with his bath. This had varied from day to day, depending on his discomfort.
6. He was not to sit in the padded chair; he could use only a straight chair.

The nurse's notes 11-7 stated the following:

"12 sleeping, 4 A.M. awake—severe right leg pain. Medication given. 6 A.M. dozing."  
—A. Smith, R.N.

When Miss Brown entered Mr. Coles' room, he said, "I'm not sure I want a bath this morning. All I want to do is sleep. I had a bad night." After talking with Mr. Coles, Miss Brown identified that the patient had experienced much leg pain during the night and that this pain had been more severe than ever before. He asked Miss Brown for medication for pain relief and described his present situation as "not bad now, but I don't want it to get as bad as last night." Miss Brown also noticed that Mr. Coles' breakfast tray was almost complete, with only the coffee and a half piece of toast gone.

After giving Mr. Coles a medication for pain, Miss Brown helped him with his bath, gave him a back rub, and made his bed. She noticed transitory redness in his low back; this disappeared during the back rub. She gave Mr. Coles fresh ice water and helped him into a clean pair of pajamas. He asked her to clip his toe nails, so she obtained a nail clipper from central supply and helped him trim his nails. Mr. Coles said, "Thank you for your care. My leg feels better than it has for a long time. There is still a dull ache running down my calf, but the throbbing pain is gone."

Mr. Coles walked (with crutches) to the bathroom while Miss Brown made the bed. When he returned to the room, he sat in the big chair by the window. Miss Brown said, "Oh, has the doctor given you the 'O.K.' to sit in that chair?" Mr. Coles replied sharply, "Well, I never heard that he didn't want me to sit in this chair." Miss Brown explained what the team leader had told her and explained that the soft slant-back chair did not help to keep his body in good alignment. Mr. Coles stated, "Well, I suppose I can go along with that, but I wish they'd let you know about these things before you go ahead and do them."

After Mr. Coles got back into bed, Miss Brown sat and talked with him. "You know," he said, "this having a back injury really bugs me. I have a brother-in-law who hurt his back lifting a sack of grain the wrong way. He's had surgery on his back three times, and he still has to wear a brace. You just never know how complicated a simple injury can be." In the conversation Miss Brown identified that Mr. Coles was an interior painter-decorator and that he had injured his back while working in his own new house. He described how anxious he and his wife were to move into their house because they were expecting a baby soon and could not stay in their apartment, which was small and overcrowded.

Before leaving Mr. Coles' room, Miss Brown changed the aqua-K pad cover and checked the water level.

During the morning Miss Brown gave Mr. Coles the following medications:

Miltown 200 mg p.o. at 9 A.M.—given to him daily to help relax him.

Darvon compound 65 mg p.o. at 9 A.M.—for pain in back and leg.

Mr. Coles was to receive one Stress Cap, a multivitamin, at 9 A.M. but he refused this. He stated, "I don't think I want that capsule this morning. Yesterday I felt nauseated about a half hour after I took this. The morning before I experienced the same thing."

Use a form for charting that is appropriate for your hospital. Check to be sure all the categories listed in Objective 3 are covered.

3. List at least three examples of adaptations to stressors in the following chart:

<i>Stressors</i>	<i>Psychological</i>	<i>Physiological</i>
Amputation		
Traffic ticket		
Hospitalization		

Add signs and symptoms of *not* coping with stressors to your list above.

What differences would you expect in the response and reactions of children or teenagers compared with that of an adult? List these differences.

List the differences you would expect in the reactions and responses of aged adults compared to the other age groups listed above? Refer to your geriatric nursing references if necessary.

4. Match the defenses or signs of adaptation in the right column that might be used for each of the stressors listed in the left column.

<i>Stressors</i>	<i>Defenses or Signs of Adaptation</i>
_____ 1. Infection	(a) Increased attention paid to finding food and less attention to learning, social behavior, appearance.
_____ 2. Smog	(b) Denial of fact at the conscious level of the mind.
_____ 3. Fear of failure	(c) Develops backache and is unable to meet obligation.
_____ 4. Anger	(d) Increased adrenalin supply, increased cholesterol deposits on blood vessel linings, increased blood pressure, increased viscosity of blood.
_____ 5. Nutritional deprivation	(e) Increased temperature, malaise that increases desire for rest.
_____ 6. Loss of loved one	(f) Increased mucous production, cilia action, and cough.

*Answers:* 1.e, 2.f, 3.c, 4.d, 5.a, 6.b.

Label the defenses above as either psychological or physiological.

### COMMENTS ON STRESSORS

*Homeostasis is a large term for the mechanisms that make our life not only possible but downright exciting! It is definitely a regulatory function (a balancing system) to keep the body in equilibrium. The disease condition of diabetes mellitus is a stressor that requires constant regulation, both external and internal, in order that the patient maintain an optimum state of health.*

*Stressors abound as conflicts, grief, shock, loss, and fear. Hospitalized patients can be in a stage of exhaustion. Having expended human, physical*



*effort to overcome stressors, these persons need your help to restore them to a state of psychological stability. For example, surgery for a patient, whether lifesaving or elective, inflicts multiple stressors. The patient experiences a period of confusion immediately following surgery. Later, a slow recognition of what has happened begins, followed by a lag while the patient assesses the damage or change before he or she progresses to recovery.*

*Recovery may not be a return to the original (e.g., the tonsils or gallbladder are gone; the prediabetic state cannot be reached); but rather, the patient must achieve a new balanced state.*

*You must learn to recognize the descending stages of alarm, resistance, and exhaustion and the ascending return to physiological and psychological stability. Your patient requires a different kind of care and support during the different phases of recovery (for example, your patient needs to receive care and support passively during the early phase of confusion and slow recognition, which continues during the lag of assessment, then needs encouragement for self-help, patient participation, and involvement from that stage up to the new balanced state.*

*How do rules affect patients? Are they a help or hindrance? Are they made to be broken? Are they for staff or patient ease and safety?*


















**5. Plan for a clinical experience in combination with others in this LEG.**

- ▲ Look for signs of stress. Identify the stressor(s) if you can. Note the stage of reaction and state how you would help these patients ascend to their new state of balance. How much stress can be tolerated before illness results? Can you tell by looking and listening when a person is sick even though he may say, "I feel fine"? You must learn to recognize the signs of disease. Watch closely for signs that your patients may feel worse than they say, or better. What behaviors of children make you think stress and anxiety are becoming too much?
- ▲ Attend postconference. As you listen and discuss your experiences of the day, write on the chalk board the stressors mentioned. Note the nursing actions taken and discuss the rationale.
- ▲ Bring a copy of your charting on one patient to postconference. Evaluate each other's charting. Are the four charting categories covered? What more would you want to know? What more could you have done for your patient if you had seen the "picture" as charted?
- ▲ Obtain your clinical agency's requirements on charting and/or a nursing audit checklist. Evaluate your examples of charting and decide if they meet your clinical agency's standards for being accurate, adequate, and meaningful.



## OBJECTIVES

### *Living with Diabetes*

-    4. *Compare the actions of insulin and glucagon in the body.*
-   5. *Compare the age of onset, predisposing factors, severity, and treatment for insulin-dependent diabetes (IDD or juvenile-onset) with non-insulin-dependent diabetes (NID or maturity-onset).*
-   6. *Given a list of statements of cause and a list of signs and symptoms of diabetes mellitus, match the ones that best explain the cause of the symptom.*
-    7. *Describe how diet, exercise, stress, weight, and illness affect the insulin-dependent and the non-insulin-dependent diabetic.*
-   8. *Given a prescription for a diabetic diet, demonstrate planning meals for two days using the ADA exchange lists. (E)*
-    9. *Demonstrate or role play taking a diet history and teaching an insulin-dependent patient or a family member to use a diet exchange list. (E)*
-  

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** diabetes as a regulatory dysfunction and as a chronic disease. The implications are numerous; all of the patient's activities, whether planned or unplanned, will be influenced by the lack of regulatory equilibrium. Instead of depending on an automatic system, the patient must become the controller. You must be able to tell the patient not only how but also why!

#### 2. **View** audiovisuals.

"The Modern Diabetic" (A), 1983.

"The Diabetic Patient" (30 min, AJN): The patient is 19.

"Diabetic Counseling: Diabetes and You" (TR).

"The Body Machine".

"Your Child and Diabetes".

3. **Read** in medical-surgical, pediatric, nutrition references about *diabetes, insulin, diet, teaching*.

#### **Programmed**

Controlling Diabetes Mellitus (AJN), 1980.

## Books

- Aronson, V., and Fitzgerald, V. D., *Guidebooks for Nutrition Counselors*, North Quincy, MA, Christopher Publishing House, 1980, pp. 233, 236, 258, 263, 264–266, 268, 276–279.
- Atkinson, Leslie D., and Murray, Mary Ellen, *Understanding the Nursing Process*, 2nd ed., New York, Macmillan, 1983, “Developing a Teaching Plan,” p. 50.
- Bodinski, Lois H., *The Nurse's Guide to Diet Therapy*, New York, Wiley, 1982, “Diet Therapy in Endocrine Disorders, Diabetes Mellitus,” pp. 149–162.
- Green, Marilyn, and Harry, Joann, *Nutrition in Contemporary Nursing Practice*, New York, Wiley, 1981, pp. 715–738, diabetes; pp. 817–821, exchange lists.
- Hymovich, Debra P., *Nursing of Children, A Family-Centered Guide for Study*, Philadelphia, Saunders, 1982, Guide 21, “June Learns to Live with Diabetes.”
- Robinson, et al., 1982, 2, “Dietary History and Nutritional Assessment for the Healthy Young Adult;” 20, “Woman with Adult-Onset Diabetes Mellitus;” 30, “Ten-Year-Old Boy with Diabetes Mellitus (Puerto Rican).”
- Smith, and Duell, 1982, pp. 88–94 on client education; pp. 519–520 on diet.
- Whaley, Lucille F., and Wong, Donna L., *Essentials of Pediatric Nursing*, St. Louis, Mosby, 1982, pp. 737–750.

## Journals

- Chambers, J. K. “Save Your Diabetic Patient from Early Kidney Disease,” *Nursing* 83, May, pp. 58–63 (explains effect of diabetes on kidney, signs to watch for that may mean trouble).
- Epiopoulous, C., “Adult Diabetes: Diagnosis and Managment of Diabetes in the Elderly,” *AJN*, November 1978, p. 884.
- Miller, B. K., and White, N. E., “Diabetes Assessment Guide,” *AJN*, July 1980, p. 1314.
- Richardson, B., “The Real World of Diabetic Noncompliance,” *Nursing* 82, January, pp. 68–73 (an assessment tool with suggested interview questions).
- Taylor, D. L., “Hyperglycemia. Physiology, Signs and Symptoms,” *Nursing* 83, February, pp. 52–53 (physiology and what to look for).

[Note: If you are taking a separate course in nutrition, this is the time to apply your basic information to special diets that are ordered for patients with specific disease conditions, such as diabetes. If you do not have a separate course (and most students do not), you must use the information learned in Volume I. Refer to the index under “Nutrition” and “Diet” for the nutrition content in the four LEGS volumes. Review the basic nutrients and diet principles each time you come across new special diets.]

### 4. Answer the following questions.

- Why is diabetes on the increase in the United States?
- List the actions of insulin and the actions of glycogen. Where is each produced?
- Describe what occurs to the blood sugar level of a normal healthy person after eating and during a period of hunger. Include what hormones are secreted and what effect they have on carbohydrate, fat, and protein metabolism.
- Explain the chain reaction of symptoms that result following a meal when there is a deficiency of insulin in the body.
- List the cardinal symptoms of diabetes and explain the reasons they occur.

- (f) Compare diabetes mellitus with other carbohydrate metabolic disorders such as galactosemia and glycogen storage diseases, including their onset, pathophysiology, nursing assessment, and care.
- (g) Compare the early signs of diabetes in a child with those typically found in an adult.

**5. Interview** a dietitian to gain insight into how to work with patients to educate them about their dietary needs and how to learn about their personal food preferences and patterns. Discuss with the dietitian the complementary roles of the dietitian and the nurse. With your classmates and the dietitian, consider ways in which dietitians and nurses can enhance their mutual effectiveness in patient education regarding dietary management of diabetes by the patient.

**6. Visit** a local supermarket. Make a list of all of the special dietetic foods you find. Be sure to look in the frozen food section for egg substitutes and in the soft drinks, jams and jellies, and other sections where sugar substitutes may be found. Compare the cost of these special items. Be sure to note the price of fructose. After surveying this information and considering the choices available to a diabetic, discuss with another classmate or several classmates whether or not diabetics need to buy these special products and, if not, what are some alternatives?

**7. Write** a diet plan for one day for the following patient using the diet exchange lists available in your textbook or from your instructor.

Mr. Gower, age 65, has non-insulin-dependent diabetes. He is on Orinase (Tolbutamide) 250 mg b.i.d. His diet prescription is 2,000 calories a day, which should be divided into 260 gms of carbohydrate, 125 gms of protein, and 60 gms of fat.

	<i>Exchanges</i>	<i>Calories</i>	<i>Gms of CHO</i>	<i>Gms of Fat</i>	<i>Gms of Protein</i>
Breakfast					
Lunch					
Supper					
Snack					
	TOTALS				

Using the following guidelines, figure out how many calories each of the patients described on p. 85 should be eating each day and write a sample meal plan for at least two of them.

Decide which persons are insulin-dependent and include at least one of them when writing your meal plans. Bring these to the group discussion to share and discuss any problems you encountered.

### *Meal Planning Guidelines*

To maintain weight, eat 30–35 calories a day per kilogram of body weight.

If there is a tendency to gain weight, eat 30 calories a day per kilogram of weight.

If you are physically active most of the day eat 35 calories per kilogram of weight.

If you are trying to reduce your weight eat 15–20 calories per kilogram of weight.

Children through late teens should not eat less than 1,200 calories per day.

Elderly persons should reduce the fat and increase the protein to reduce the risk of atherosclerosis.

Mid-afternoon and evening snacks must be included if the person takes insulin.

Alcohol should be deducted from the fat exchange (45 calories equal 1 fat exchange).

Omit sweet wines and liqueurs; artificial sweeteners are allowed. Alcohol proof  $\times 0.08$   $\times$  fluid ounces equals calories. Physician approval regarding recommendations on alcohol in the diet should be obtained before working with the patient.

Carbohydrates should make up 50% of the calories.

Proteins should make up 20% of the calories.

Fats should make up 30% of the calories (may be reduced but should never exceed 30%).

Be consistent in dividing calories between CHO, P, and F.

Eat at regularly scheduled times each day!

Fill in these blanks to use as a reference:

A kilogram equals \_\_\_\_\_ pounds.

I weigh \_\_\_\_\_ kilograms.

One gram of carbohydrate equals \_\_\_\_\_ calories.

One gram of protein equals \_\_\_\_\_ calories.

One gram of fat equals \_\_\_\_\_ calories.

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

**1. Plan** and eat your own ideal meals for one day using the guidelines in A-7. Calculate your ideal caloric intake and use the diet exchange lists to select your foods. Complete this experience before the group discussion so you can share your reactions. Why is it said that diabetics often live healthier lives than the average person? Do you feel any different after eating your planned meals? Can you think of ways you might benefit from changing your own dietary habits?



2. **Attend** a small group discussion on "Teaching Diabetics." Be sure there are several diet prescriptions and exchange lists available for your role playing.

Role play with two of your classmates: one person should assume the role of the insulin-dependent diabetic, one the role of the non-insulin-dependent diabetic, and the third person the role of the dietitian. The dietitian can review with the patients the importance of following the appropriate dietary strategies for the specific type of diabetes each patient has. This can be done by asking each patient to outline the usual diet plan to be followed and then to identify changes that may be necessary for each of the following: exercise, stress, weight control, and illness. If time permits, explore also the changes necessitated by pregnancy. Be sure the dietitian summarizes the significant differences between the dietary strategies for the two different types of diabetic patients. Here are some possible patients to use:

Peggy Posy, age 6, has diabetes and weighs 40 pounds.

Her mother is a teacher and seems very anxious to learn everything to help the child.

Joe Jones, age 16, weighs 150 pounds. He is withdrawn and uncommunicative. He states that he does not want to talk about diabetes and shows little interest in discussing diet exchanges. He likes soda and chips and is on the school baseball team.

Mrs. Middling, age 50, weighs 180 pounds. Her diabetes was recently diagnosed and she seems agreeable to most of your suggestions. She loves to eat and cook.

Mr. Elderly, age 72, is also recently diagnosed. He seems confused by this disease and can't seem to understand the diet exchange lists. He says, "My wife always took care of the meals. Since she's been gone, I haven't paid much attention." His daughter visits him daily and is concerned about his living alone. He weighs 185 pounds.

- Review the developmental tasks of each of the patients above. How will they affect their learning?
- Relate crisis, body system, and stress to the regulatory aspect of caring for these patients. How are they interrelated?

Assume you are working with Mrs. Middling, who is interested in modifying her living pattern to reduce the possible complications of the diabetes. What suggestions would you make to help this woman? Why are these ideas likely to help? What cautions would you need to include when working out the plan with her?

Assume you are working with a diabetic patient who likes to have a little alcohol in his or her diet. How would you approach your discussion about the consumption of alcohol, or would you feel that it is wisest to ignore the subject? Discuss this issue with your classmates. Would this need to be a matter of discussion with a patient if he or she makes no mention of alcohol consumption? How does this fit into the two-day diet plan you are developing?

3. **Plan** for a clinical experience.

- ▲ Give morning care to diabetic patients with or without complications and of different age groups. Look for symptoms of diabetes. Ask patients to tell you about past

symptoms. Chart your care and observations. Make notes on your speculations or care you would want to give. Bring them to postconference.

- ▲ Help patients with diets. Use diet exchange lists. Feed as necessary. Help with special preferences. Find out how the patient's food intake is reported and by whom—dietician, aide, RN? What if all is not eaten? What about religious implications?
- ▲ Care for a patient who has had diabetes for many years. Give general morning care. Do not look at the patient's chart—but listen to the patient. Find out how he or she copes with the disease—which routines work, which don't work; how illness, such as a cold, affects the balance; how did he or she learn to take insulin, measure diet amounts, and so on. Chart and work up a nursing care plan so that others can benefit by what you have learned. Review the nursing care plan in "To the Student" section.

### **C. EXTRA ADDED ATTRACTIONS! \_\_\_\_\_**










**1. Create** a teaching pamphlet or poster for children or older adults on a diet that has food exchange lists, types of foods that can be exchanged, and so on. Plan this either in a group or individually and then try using it with some well-planned objectives, such as: "Patient will accurately select one food exchange from lists 4, 5, and 7 for breakfast, lunch, and dinner one day, using a 1,000 calorie menu."

- Role play teaching these patients (or others) how to use exchange lists.

**2. Use** microcomputer clinical simulation: "Case #2 Mr. Richardson: A Man with Newly Diagnosed Diabetes" (Saunders).

# OBJECTIVES

## Testing Urine and Blood

-   10. Demonstrate and describe in writing obtaining, recording, and testing a urine specimen for sugar and acetone from the following: (a) patient with indwelling catheter, (b) infant, (c) patient with bathroom privileges, (d) patient who tests his or her own urine and is on sliding-scale insulin, including the reasons for the test.
-   11. Demonstrate and/or describe in writing teaching a patient how to test urine for sugar and acetone and state the normal results.
-   12. Demonstrate and/or describe in writing teaching a patient how to use a Chem-strip bG to test his or her blood sugar level.
-    13. Describe the purpose and patient preparation for each of the following: (a) "fasting blood sugar," (b) "glucose tolerance test," (c) "postprandial blood sugar," and (d) "cortisone-glucose tolerance test."

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** urine specimens and testing. Is this an appealing subject to you? It probably is even more devastating to your patient. The patient will have to collect and test a daily urine specimen for the rest of his or her life. Your attitude is vitally important as you teach the patient *how* and *why* so that a positive, rather than depressed or denying, attitude can be developed.

#### 2. View audiovisuals.

"The Modern Diabetic" (A).

"Testing the Urine for Glucose and Ketones" (TR), 1982.

"Diabetic Counseling: Urine and Ketones" (TR).

"Home Monitoring: Blood Glucose and Ketones".

"Home Monitoring: Urine and Ketones".

3. **Read** medical-surgical, pediatric, laboratory tests and pharmacology references on *collecting and testing specimens, blood sugar tests, glucose tolerance tests*. Read about each test in boxes on the next page before attending discussion.

#### Journals

Lundin, D. V., "Reporting Urine Test Results: Switching From + to %," *AJN*, May 1978, p. 878.

Jackson, Carol, "Diabetes: How Your Patient Looks at It," *Nursing* 81, May, p. 82 (how the nurse can help the diabetic patient with emotional adjustment).

- Pelczynski, Linda, and Reilly, Ann, "Helping Your Diabetic Patients Help Themselves," *Nursing* 81, May, p. 76 (teaching patients about their disease and physical care).
- Plasse, Nancy, "Monitoring Blood Glucose at Home—A Comparison of Three Products," *AJN*, November 1981, pp. 2028–2029.
- Stevens, Denise, "Monitoring Blood Glucose at Home—Who Should Do It?" *AJN*, November 1981, pp. 2026–2027.
- White, Claire S., "Teaching Patients to Use the New Blood Glucose Monitoring Products," *Nursing* 83, January, pp. 42–45 (colored pictorial, getting a drop of blood, use of Chemstrip bG, Visidex, Dextrostix).

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a small group discussion on "Preparing Diabetic Patients for Diagnostic Tests." Explain what you would tell each patient. How do you know if your patient understands?

Mrs. Manson has an order for a "fasting blood sugar and one hour postprandial in the A.M."

A "glucose tolerance test is ordered for Mr. Morgan in the A.M."

Mary Sixtine has an order for a "cortisone-glucose tolerance in the A.M."

Role play the activities with which a nurse will need to concern him- or herself for each of these patients, on each of the next three shifts. Include giving a shift report about what is to be done and what was done. (Don't forget to include the patient, the lab, the diet kitchen, and the physician.) Are fluids restricted?

- Role play collecting, testing, and teaching a patient (or family member) about urine specimens for the following patients:

A 35-year-old postoperative patient with an indwelling catheter. (An insulin-dependent diabetic hospitalized for unrelated surgery.)

An 18-month-old boy whose mother is ready for teaching.

A 66-year-old man who has newly diagnosed diabetes and is up and about with bathroom privileges.

A 17-year-old student who is used to testing her own urine at home and is going away to college next month.

- After you have evaluated role playing of these situations, change them: What if one patient is color-blind? How would you know? What if one patient is incontinent? Has cataracts? Has had a stroke and has little or no use of her right hand?



- Consider these orders: “*Fractional urines 7—11—4—9.*” “*24-hour urine beginning at 8 A.M.*” “*Chem Strip daily before breakfast.*” Explain each of these orders to another student. How would you accomplish each for the above patients? Can you save a 24-hour specimen at the same time you collect fractional urines at 7, 11, 4, and 9? How? How can this be done for an infant or a nontilet-trained child? How can you explain to a patient who speaks no English and has bathroom privileges?
2. Plan for a clinical experience.
    - ▲ Collect urine specimens from patients indicated in Objective 10.
    - ▲ Test the specimens for sugar and acetone. Report or record the results, either routine or sliding scale.
    - ▲ Assist with fasting blood sugar test. Note evening and night preparation.
    - ▲ Teach or observe at least two patients testing urine for sugar and acetone and blood sugar level with Chem Stick. Follow up for two or three days to be sure your teaching is successful. See clinical experience for Objectives 18–21 for more on teaching and the value of the time spent on teaching.













**C. EXTRA ADDED ATTRACTIONS!** \_\_\_\_\_

1. Create a teaching poster or pamphlet that teaches how and why to collect and test urine and also depicts attitudes. Make it as positive and motivational as you can. What differences would you want to include for the different age groups? How can the patient keep daily records to take to the doctor’s office? You may want to practice this yourself at home. Go through the whole procedure, take notes on how you feel, what you do, before making the teaching tool. What questions do you have? What if you had to do this every day?
2. Assist with other diagnostic tests for diabetes mellitus, as available.



# OBJECTIVES

## Pharmacology

-   14. Differentiate between the action/use, route of administration, and untoward effects of insulin, oral hypoglycemic drugs, and glucagon. A drug list will be provided by your instructor.
-   15. Differentiate between short (rapid), intermediate, and long (slow) acting insulin in relation to the onset, peak, and duration of effect, and give two examples of each.
-   16. Demonstrate and/or describe in writing preparation and administration of a prescribed dose of insulin to a patient, including mixing two types of insulin in one syringe.
-   17. Write a plan for teaching a patient (teenager, middle adult, and aged adult) how to administer insulin to him- or herself stating your rationale for each step in your teaching plan, and then role play or demonstrate teaching a patient according to your plan.    

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** what insulin means to the diabetic patient. It is lifesaving, and it will probably be needed by most patients for the rest of their lives. Patients must learn about the drug—when to expect the most effect and when the least. Some means of administration of this drug must be planned on an outpatient basis. Most of your patients will have ambivalent feelings about insulin and their own need for it.

2. **View** audiovisuals.

“Diabetic Counseling: Insulin: Management and Use” (TR).

3. **Read** medical-surgical, pediatric, adolescent, geriatric, and pharmacology references on *insulin, oral hypoglycemic drugs, glucagon, and administration of insulin.*

#### Books

Smith, and Duell, 1982, “Administering Insulin Injections,” p. 266.

#### Journals

Bingham, D., and Guay, P. L., “More Special than Different,” *AJN*, November 1981, pp. 2031–2032.

- Childs, Belinda P., "Insulin Infusion Pumps: New Solution to an Old Problem," *Nursing* 83, November, p. 54.
- "Common Problems in Managing Adult Diabetes Mellitus, *AJN*, Reprint, May 1978, p. 871.
- Essig, Mary, "Update Your Knowledge of Oral Antidiabetic Agents," *Nursing* 83, October, pp. 58–63 (action/use, adverse effects, teaching pointers).
- Fredholm, Nancy, "The Insulin Pump: New Method of Insulin Delivery," *AJN*, November 1981, pp. 2024–2026.
- Fredholm, Nancy, Vignati, Louis, and Brown, Sylvia, "Insulin Pumps: The Patients' Verdict," *AJN*, January 1984, p. 36.
- Herget, Marilyn, "For Visually Impaired Diabetics," *AJN*, November 1983, p. 1557 (good visuals).

**4. Attend a small group discussion on "Patients on Insulin."**

Read at least two articles on administering insulin and complications of insulin therapy.

Consider the following patients. When would you look for the beginning effect from insulin? How will you know? What would alert you to a problem? Why? Which of the following patients would be a candidate for an insulin pump?

Mrs. Nelsen, age 54, is hospitalized because of pneumonia. Her long-standing insulin-dependent diabetes is out of control. She is receiving Lente insulin qd and crystalline insulin on a sliding scale.

Mary Deaton was admitted in diabetic coma. She is 15 years old and has had insulin-dependent diabetes for two years. She is now being regulated on a sliding scale. Her appetite is poor, and she has many food idiosyncrasies. She must be urged to eat her evening meal.

Mr. Barrotti has severe vascular disturbances and several ulcerous lesions on his right leg. A "brittle" insulin-dependent diabetic of long standing, he takes NPH insulin on a regular basis. He is scheduled for a fasting blood sugar this morning, so has a "hold" breakfast and "hold" insulin. He is 39.

### PROBLEMS FOR SOLVING

- Which patient is likely to need an early breakfast or a little orange juice? Why? Discuss alternate types of insulin for these patients.  
 What particular precautions or observations would you make or take if you were the evening nurse? Night nurse? Why?  
 What symptoms of fluid and electrolyte imbalance might occur? Why?
- You are caring for a diabetic patient at night. You know that visual observation is not enough. When you go into the room and feel his bed clothes, you notice that they are damp from perspiration. What is your next move? Why?
- If your patient is scheduled for x-ray or surgery and is NPO, should you give the insulin?
- An adolescent patient wants to sleep until 11 A.M. on Saturday morning. Is this all right?



5. **Create** a teaching tool to explain the amounts of self-administration of insulin.

Example: Large syringe with movable plunger; markings clearly readable for U 100 insulin.

6. **Write** teaching objectives for your patients. Include what you want to do for them and what they must learn from you. For example, demonstrate to a patient the sites for self-administration of insulin. Demonstrate to a patient how to give insulin s.c. Have patient return the demonstration to nurse. List ways for them to learn and how you will find out if they did learn. (You may find that you are writing a tiny LEG for self-administration of insulin.)

**B. PUTTING IT INTO ACTION!** \_\_\_\_\_

1. **Check out** self-practice materials for "Insulin Measurement." Practice drawing up solutions in unit amounts on both an insulin syringe and a tuberculin syringe. (Label them according to "pretend units" for practice.) Check your measurement with other students.

- Is insulin given s.c., I.M., or I.V.? When? Why? Which types? How do you mix insulin in the vial? Shake? Rattle? Roll? Why?
- When mixing two insulins in a syringe, Regular and Lente, which should you draw up first and why?

2. **Practice** in campus lab (with another student playing the part) teaching the following persons to give insulin or an oral hypoglycemic drug; consider each of these patients to be newly diagnosed diabetics.

Mother of a 4-year-old diabetic child

14-year-old boy

30-year-old primipara

56-year-old obese man

86-year-old woman

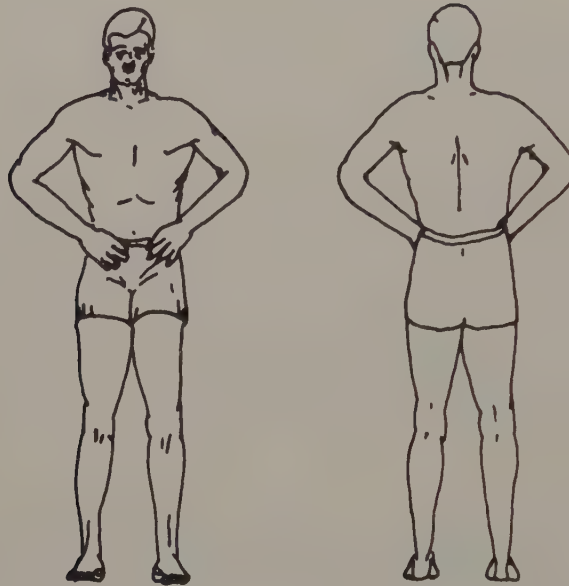
How would you adapt your methods if they were all patients with diabetes for a year or more? How will you find out how much they already know and how much they need to learn? How would you adapt your teaching if one of these patients is blind? Has hand tremors? Speaks no English?

What if the 4-year-old's mother is unable to prepare herself psychologically to give him injections? There are no other close members in the family.

What if one patient takes aspirin for arthritis and is now taking Tolinaase?

- How do you communicate with the other nurses on each shift about the progress of the patient's learning? How many nurses will be involved in teaching the patient and why?

3. Draw in the areas on the two figures below where it is safe to give insulin. Circle the areas that are usable by the patient to administer insulin to him- or herself. You may need to do some practicing on yourself (using a syringe without the needle) to find out which are possible.



How would you teach the patient to rotate sites? How often can the same site be used?

4. Write or discuss your reaction to the following order for a patient who is being admitted to the ER and whom you have not yet seen.

"Glucagon 0.5mg I.M. stat"

- How do you expect the patient to appear? Why do you think this drug has been ordered?
- How does the drug come? How do you mix it? Is it an emergency drug?

5. Write what you would do to carry out the following orders on your patient:

“Fractional urines”

“Sliding scale”

4 + 15 U Regular Insulin

3 + 10 U Regular Insulin

2 + 5 U Regular Insulin

1 + None.

“Rainbow coverage”

6. Plan for a clinical experience.













- ▲ Find out what your hospital's procedure is before giving insulin. It may be necessary to verify that you have drawn up the correct dosage with an additional person before administering it. What can you do to ensure accuracy when no one else is available?
- ▲ Administer insulin to a variety of patients: child between 3 and 8 years, teen-ager, middle or older adult.
- ▲ Administer insulin according to sliding scale or before breakfast as ordered. Teach the parent or patient about giving insulin.





# OBJECTIVES

## Preventing Complications

-    18. Given either a patient situation or a list of signs and symptoms of hyperglycemia and hypoglycemia, identify which condition exists, and given a list of nursing actions, select which action would be best for each situation (or symptom) and state your rationale.
-    19. State why complications of diabetes mellitus (e.g., infections, visual disturbances, neuropathies, vascular problems) are likely to occur and how they may be prevented or eased, including teaching about infection, trauma, healing, and foot care.
-    20. Demonstrate caring for a patient who is diabetic, taking measures to ensure that the patient is receiving diet and medication as prescribed and planning nursing interventions to prevent complications of the disease. Write a nursing care plan.
-    21. Describe why the sexual pleasure of a person with diabetes might be altered.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** complications. They are always dreaded and can often be avoided by an astute patient and/or nursing observations and excellent care. Learn how to recognize signs and symptoms of complications when they are still in an early treatable stage. Teach patients how to watch for them and to prevent them. What would you do if your patient had long, ragged toenails and cracked dry skin between the toes?

### 2. View audiovisuals.

"The Management of Maturity Onset Diabetes Mellitus," Parts 1 and 2 (117 min, GSA), 1980.

"Diabetes: Focus on Feelings" (24 min, UM, EMC, USC, UMC), 1980.

"The Diabetic Patient" (30 min, AJN): Adolescent.

"Pathology of Diabetes" (TR).

"The Modern Diabetic" (A).

"Dragnet for Diabetes" (50 min., USC), 1980.

"Diabetic Counseling: Hypoglycemia and Hyperglycemia" (TR).

"Listen to Your Body."

"Taking Care of Your Body."

"Diabetic Complications: Reducing the Odds."

3. **Read** medical-surgical references on *hypoglycemia*, *hyperglycemia*, *ketoacidosis*, *metabolic acidosis*, *diabetic coma*, *HHNK*, and *complications*.

## Books

Lion, Elizabeth M., *Human Sexuality in Nursing Process*, New York, Wiley, 1982, Chapter 14, Sexuality and Chronic Illness, (diabetes).

## Journals

- Chambers, J. K., "Save Your Diabetic Patient from Early Kidney Disease," *Nursing* 83, May, pp. 58-63 (explains effect of diabetes on kidney, signs to watch for that may mean trouble).
- Forbes, Karen E. and Stokes, Shirlee A., "Saving the Diabetic Foot," *AJN*, July 1984, p. 884.
- Garofano, C., "Helping Diabetics Live with Their Neuropathies," *Nursing* 80, June, p. 42-44.
- Graham, Sue and Morley, Margaret, "What 'Foot Care' Really Means," *AJN*, July 1984, p. 889. Preventing neuropathy, vascular insufficiency, and infection.
- Kiser, Debra, "The Somogyi Effect," *AJN*, February 1980, pp. 236-238.
- McCarthy, Joyce, "Diabetic Nephropathy," *AJN*, November 1981, pp. 2030-2034.
- Nemchik, Rita, "Diabetes Today, A Startling New Body of Knowledge," *RN*, October 1982, pp. 30-35. "Diabetes Today, Facing Up to the Long Term Complications," *RN*, July 1983, p. 38.
- Perrin, E., "Laser Therapy for Diabetic Retinopathy," *AJN*, April 1980, pp. 664-665.
- Stock-Barkman, Patricia, "Confusing Concepts. Is It Diabetic Shock or Diabetic Coma?" *Nursing* 83, June, pp. 33-41 (compares shock, coma, and HHNK and what nursing actions to take).

## Pamphlets recommended for teaching

- A Guide for the Diabetic (Lily).
- You and Diabetes (Upjohn).
- Mr. Hypo Is My Friend (Ames).
- Toward Good Control
- Straight Talk about Diabetes
- Home Urine Testing for the Diabetics
- Plain Talk for Parents of Diabetic Children
- Sugar Twin

## Programmed

*Controlling Diabetes Mellitus*, (AJN) October 1980, p. 1827.

4. **Underline** the signs and symptoms in each patient situation and then write out the problem(s) (e.g., complication, varicose ulcer) on the following lines.

- Identify the condition that exists.
- List as many nursing actions as you can think of or find that would be appropriate for assisting a patient who has hyper- or hypoglycemia. From this list write which ones you would use for each of the situations below and state your rationale.

Martha Baker, 19 years old, studying for exams. She has had diabetes for 5 years and has difficulty keeping it under control. She is slightly obese and loves to nibble at food when she is studying. She finds it increasingly difficult to study because of blurred vision and difficulty with lines of print. \_\_\_\_\_

Robert Worldson has just returned from a trip to South America. He is 52, a successful businessman who has had mild diabetes for four years. He knows about the importance of diet and has been maintained on an oral hypoglycemic agent. He contracted an intestinal parasite while traveling and has had violent bouts with diarrhea, nausea, and vomiting even though he is on antibiotics. He "can't eat," and after two weeks he was admitted to the hospital with a rapid, weak pulse, flushed, dry, hot skin, and was semi-conscious. \_\_\_\_\_

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Madge Sommer, age 66, has had diabetes since she was 38 and has maintained fairly good control with diet. She has arthritis and finds it difficult to "get around as I used to." She has noticed that her legs "tingle" and that she has very dry skin, itching, and an open sore on her right shin where she "bumped it over a month ago," while going to the bathroom at night. She notices some swelling in her ankle in the evening, and her lower legs are bluish and mottled. Her toes are becoming stiff and the joints deformed, making wearing of shoes difficult. She notices that she has many more "corns" than ever before. \_\_\_\_\_

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Marilyn Popula is 25, newly married, newly pregnant and has been a diabetic for eight years. She has had her ups and downs with diabetes. She gives herself insulin, and when she remembers and cares enough, she regulates her diet very well. She is finding it more difficult now because she is frequently nauseated and has little interest in food. She complains of frequent sudden attacks of nervousness and tremors; her skin becomes pale and moist. \_\_\_\_\_

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Roger Robust, age 37, has had insulin-dependent diabetes for ten years. He takes daily insulin and is in good control. He has just been admitted to the emergency room because of injuries in an auto accident. He has multiple bruises and bleeding from a compound fracture of the left femur. He is scheduled for emergency surgery in one hour. He was alone in the car, and next of kin cannot be found. He has Kussmaul respirations. \_\_\_\_\_

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Because of excellent nursing care and teaching, Mrs. Popula found relief from her negative gastrointestinal symptoms (nausea and anorexia) in her second trimester. She went to many parties and coffees with her friends. She took a cooking course and created many delicious "out-of-bounds" dishes. However, she was faithful about taking her insulin. She had gained five pounds by her next prenatal check-up, her blood pressure was low, and the nurse cautioned her to "watch her diet." Poor Marilyn Popula had gotten into a pattern of wanting the extra food and socialization that went with it; for two weeks she continued to eat and gain weight; her skin became dry and hot. Her urine tests were alarmingly orange, and then she became too drowsy to bother to cook. She was not hungry, and her husband called the doctor because he could not arouse her one morning. He told the doctor: "Her breath smells sweetish, and she is gulping for air." \_\_\_\_\_



- Using the steps of the nursing process, determine nurse-patient goals and identify the nursing interventions that you could employ or observe related to these patient situations. Practice charting.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Explain** to another person why the symptoms below occur.

polyuria  
polydipsia  
hypoglycemia  
hyperglycemia  
polyphagia  
glycosuria  
dehydration

- Explain the relationship between hyper- and hypoglycemia and hyper- and hypoin-sulinism. These exercises are in preparation for the group discussion (B-2).
- List the signs and symptoms, causes and treatment for ketoacidosis and HHNK.

2. **Attend** a small group discussion on "Signs and Symptoms and Nursing Interventions."

- Discuss the following definition of nursing intervention:

"... professional nurses can initiate nursing interventions for the consumer's benefit without physician direction. Independent intervention with nursing procedures and techniques does not imply that physicians should not order nursing treatments; in many instances the physician relies heavily on nursing interventions in his effort to cure the disease being treated. It does imply, however, that professional nurses are free to perform nursing procedures independent of physician direction when those nursing treatments apply to health problems that fall within the nursing domain." Campbell, Claire, *Nursing Diagnosis and Intervention in Nursing Practice*, 2nd ed., New York, Wiley, 1984.

- Using your answers to Learning Experiences A-4 and B-1, discuss the signs and symptoms, causes, and actions you would take because of the symptoms you observe. Discuss your rationale. What symptoms would you look for next time that might precede those observed in the situations?
- React as a group or individually to the following: You are assigned, on call, to the emergency room to make observations and to give assistance. *Call #1.* A 31-year-old male in diabetic acidosis has just been admitted. *Call #2.* A 4-year-old-girl, admitted in coma, not responding. *Call #3.* A 76-year-old-man admitted in shock—"looks like insulin reaction."



What symptoms do you expect to see for each of these diabetic patients? What emergency measures will probably have been prepared or started? Why?

What will you look for? How do you feel now? Compare your feelings now with probable feelings when you are actually in an emergency situation. Think about it! One emergency at a time is enough!

- Discuss the nursing care plan of a patient with diabetes found in the Introduction to this Volume.

In order to become self-disciplined about special daily care of the feet, a patient will need to know what can happen without special care and why. What can happen? List several possibilities. Make a teaching plan.

- Review the long-term complications of diabetes. How can infections and neurological and vascular changes affect the sexual functions of men and women? Be specific. What factors lead to these changes? What is the nurse's role?

3. **Write** a paragraph on the difference between causes of fluid loss (e.g., polyuria because of glycosuria in diabetes mellitus and diaphoresis due to fever or anxiety). State how these different causes of possible dehydration influence nursing action.

4. **Create** a card to carry with you that gives you reminders of the signs and symptoms of insulin reaction and diabetic acidosis. Use whatever terms will help you remember. Under the symptoms write one or two nursing actions you would take.

5. **Examine** the following record.

Jenny Day, 6 years old, was admitted to the pediatric unit at 9 A.M. Her father and mother came with her. Her diagnosis: probable diabetes.

Use the doctor's order sheet and the notes made by the nurse to compare the course of the illness, the characteristic symptoms, and lab work with what you have read about diabetes. Try to determine from each assessment what is happening and why the doctor wrote those orders. What nursing actions were taken and why?

It might be easier to see what is going on if you first organize and summarize the notes and chart the pertinent information on the chart form used in your facility.

#### Doctor's Orders

4/15 9 A.M.

V S q4h

1,200 cal diet, no extra sugar or sweets.

Glucose and ketones. Repeat 3h after insulin given and at 2200.

D-5-½NS to run at 25 cc/h

Give Regular Insulin 5u. s.c. after I.V. is started.

Parents may visit anytime.

Monitor all urines for S & A.

4/15 3 P.M.

Reg. insulin 5u. s.c. now.

Sliding Scale Insulin to start at 0200 4/16.

4+, sm-lg	}	5 units, Reg. insulin s.c.
3+, lg		
4+, neg	}	4 units
3+, sm-mod		
3+, neg	}	3 units
2+, sm-lg		
2+, neg	}	2 units
1+, sm-lg		
1+, neg	}	none
neg, neg		

#### *Notes on Patient Care*

4/15

0900

Routine admit procedure.

States inc. thirst and inc. urine. Looks well nourished.

Grandmother diabetic.

Skin warm, dry; mouth dry. Oriented. States had O.J. for breakfast.

1000

Urine, blood spec. to lab; Voided 200 cc. S & A 2% mod.

TPR 99.5-112-20; BP 108/80; Ht. 44½"; Wt. 42¼ lb.

I.V. started, #22 angio, left hand, TKO D-5-0.45% NS-500 cc.

Up and about room. Diet soda, 80 cc.

1100

Admit lab: Blood glucose 450 (65-110 mg/dl); Ketones

250 (↓ 5 mg/dl); Na 137; K 51; Bicarb 18; Cl 97.

1130

Reg Ins. 5u s.c.

1200

Lunch 75%; 240 cc milk.

1400

Voided 200 cc, S&A 2+ /mod; Blood glucose 435, ketones 100.

Patient Education Coordinator here.

Diet coke 70 cc.

1500

Total I.V. 100 cc; watching TV; parents here.

Reg. Ins. 5u s.c.; diet coke 100 cc.

Lung sounds clear, upset about having injections every day.

1600

TPR 99.6-80-20. Dietitian here.

1800

Feeling shakey and hungry

Voided 250 cc; S&A ½% /neg; blood glucose 65, ketones 10.

Dinner 90%; O.J. 240 cc.

2100

Diet coke 200 cc; jello 120 cc.

Voided 250 cc; S&A 2% /mod; blood glucose 115, ketones neg.

2200

Diet coke 180 cc, then sleeping.

Total I.V. 200 cc.

4/16

2300-0700

Slept, afebrile, no oral fluids, 215 cc I.V.

0400

TPR 97.8-120-18.

0645

Voided 300 cc; S&A 1/10% /tr.

0800

Voided 150 cc; S&A ½% /mod; Reg. Ins. 3u s.c.

TPR 98.6-100-20; lung sounds clear, states not very hungry.

	No c/o abd. pain, nausea.
	Breakfast: applesauce, 2 bites egg, 240 cc milk.
0900	Tub bath, oral care. Still upset about idea of daily injections.
1030	Voided 200 cc; S&A 2% mod.; Reg. Ins. 5u s.c.
1200	Lunch 50%, 150 cc juice.
1430	I.V. dc'd; voided 200 cc; S&A 2%/tr.; Reg. Ins. 5u s.c.
1500	Total I.V. 160 cc.
1600	TPR 99-100-24; juice 90 cc.
1700	Dinner 95%, diet coke 100 cc.
1800	Voided 300 cc, S&A 1/10% neg.
2000	TPR 98.8-100-24.
2200	Juice 55 cc.
	Voided 300 cc, S&A 2%/neg.; Reg. Ins. 4u s.c.
2300	To bed, feet cold.

## 6. Plan for a clinical experience.

- ▲ Look for examples of situations in which nursing interventions could be employed. Make notes, and bring them with you to postconference. Compare your observations and discuss your feelings about taking independent action.
- ▲ Look for signs and symptoms of insulin reaction and diabetic acidosis, either as the primary or secondary cause for admission to the hospital, as you care for patients with diabetes mellitus.
- ▲ Plan for teaching self-care to a patient with either insulin-dependent or non-insulin-dependent diabetes. Figure out how long it would take you to teach the patient. Limit the teaching to one aspect of self-care, such as urine testing or self-administering insulin.

Find out what audiovisual materials are available. How long would it take a patient to learn to use the audiovisual equipment? Figure this into your overall time.

Find out what *nursing time* is worth (financially) per hour or minute. What do patients pay as an hourly rate for nursing care in your hospital?

When you find out answers to all these questions, then you will know approximately what a patient would have to pay if the teaching of self-care by a staff nurse were a separate charge. How would it compare with medications, lab tests, and physical therapy if it were a separate item on the patient's bill? Compare its value in relation to its cost. Discuss your findings in postconference.

- ▲ Care for a diabetic patient. Check the diet and medication orders. Find out what the patient eats from each tray and how he or she likes the diet. Review the complications that are likely and take special measures to prevent complications. Write a nursing care plan and present a summary of your care in postconference.





# OBJECTIVE

## Community Resources



22. Given a list of patient problems, select those that could benefit from or be helped by the American Diabetes Association.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** national, state, and local official agencies. What do they do for people? The general public? Patients? Students? Persons in the medical professions? Which agency are you most familiar with? Why?

2. **Write to** the American Diabetes Association (2 Park Avenue, New York, New York 10016). Ask them for their objectives or purpose for being; how they remain solvent; what percentages of moneys go to state and local agencies (if any); how their functions differ from those of the state and local agencies.

3. **View** audiovisuals.

"Diabetes Unknown" (29 min, UJ).

"Diabetes: What You Don't Know Can Hurt You" (27 min, A).

4. **Read** pamphlets from the ADA.

*The ADA Forecast* (bimonthly magazine for diabetics and their families).

### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Visit** your local ADA office (after making an appointment).

2. **Attend** special classes for diabetic patients, if any.

**3. Match** the following (use more than one answer if necessary):

- |   |                    |
|---|--------------------|
| _____ 1. Administer daily insulin               | (a) ADA (National) |
| _____ 2. Speaker for civic club meeting         | (b) VNA            |
| _____ 3. Treatment of diabetic coma             | (c) Local ADA      |
| _____ 4. Provide caloric diabetic menus         | (d) Local hospital |
| _____ 5. Sponsor annual case-finding clinic     | (e) Drug companies |
| _____ 6. Provide educational materials          | (f) Other          |
| _____ 7. Teach patients about foot care         |                    |
| _____ 8. Provide sample urine testing equipment |                    |
| _____ 9. Provide diabetic meals at home         |                    |

# LEG VI-B Stress, Adaptation, and Diabetes

## HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VI-B are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the "doing" Objectives. Use a separate sheet of paper for these answers and then use the answers in clinical or campus lab for your own evaluation.

### *Objectives*

### *Questions*

1. List three examples of the adaptation response to at least one of the environmental stressors listed below:

#### *Stressor*

#### *Physiological*

#### *Psychological*

Lack of oxygen  
Fear of height  
Pain

2. Identify at which stage, the alarm reaction, stage of resistance, and stage of exhaustion, the person is in for the following (some of it you will have to make up if the specific reaction is not stated):

Child playing, stubs her toe; hurts, bleeds, comes in crying for comfort and first aid. . . .

Father prepares for particular ventures for many weeks; deal falls through; wife notices that her husband is irritable and very tired. . . .

Mother has been harrassed by a cross, whining child; she cries when her husband criticizes her burned vegetables. . . .

3. Which of the following categories is *not* covered in the charting below: nursing assessments, nursing interventions given, patient responses, patient behavior?

Bath; special skin care; rubbed area over coccyx.

Positioned on left side.

Very quiet today. Said she did not sleep well. Awake, wondering, *How can I manage at home?* Suggested social worker visit to help arrange for some care during first week at home.

- 4
4. Which of the following statements are true about insulin and which true about glucagon? Mark each with an "I" or a "G."
- (a) It is produced in the pancreas by the alpha cells in the islets of Langerhans.
  - (b) It is released when the blood sugar level falls, such as after several hours without eating.
  - (c) It helps convert glucose to glycogen for storage.
  - (d) It is produced in the pancreas by the beta cells in the islets of Langerhans.
  - (e) It stimulates moving glucose out of the bloodstream and into the cells.
  - (f) It helps convert glycogen to glucose in the liver in order to raise the blood sugar level.
  - (g) It promotes all processes that lower the blood sugar level.
  - (h) It is released by the islets when the blood sugar level is high, such as after eating.
  - (i) It promotes a rise in the blood sugar level when the glucose level in the blood drops too low, such as after skipping a meal.
- 5
5. Imagine hearing the following statements by a patient or friend. Write true or false in front of each statement.
- (a) Insulin-dependent diabetes usually appears after the age of 30.
  - (b) The non-insulin-dependent diabetic often has a family history of diabetes.
  - (c) Obesity will often cause symptoms of non-insulin-dependent diabetes.
  - (d) The symptoms of non-insulin-dependent diabetes are less severe than those of insulin-dependent diabetes.
  - (e) An infection, stress, or pregnancy can create excessive demands for insulin and cause symptoms of non-insulin-dependent diabetes to appear.
  - (f) Persons with non-insulin-dependent diabetes must take insulin regularly.
  - (g) Insulin-dependent diabetics can stop taking insulin when they increase their exercise and reduce their weight.
  - (h) Insulin-dependent diabetics must follow a prescribed diet carefully and must usually have more than three feedings a day.
  - (i) Non-insulin-dependent diabetics must take insulin the rest of their lives.



- (j) Hyperglycemia is a problem for both insulin-dependent and non-insulin-dependent diabetics.
- (k) Vascular problems can affect the coronary and peripheral arteries, the kidneys, and the eyes in both insulin-dependent and non-insulin-dependent diabetes.

6

6. Match the following lists (one answer only):

- |   |                    |
|---|--------------------|
| _____ 1. Carbohydrate metabolism inefficient                                | (a) Polyuria       |
| _____ 2. Kidneys attempt to dilute urine                                    | (b) Polydipsia     |
| _____ 3. Ingested food cannot be utilized                                   | (c) Polyphagia     |
| _____ 4. Hormone lacking that changes glucose to glycogen for liver storage | (d) Hyperglycemia  |
| _____ 5. High blood sugar "spills" into urine                               | (e) Glycosuria     |
| _____ 6. Dilution of urine may cause dehydration                            | (f) Hypoinsulinism |

7

7. Describe the effect the following have on insulin-dependent and non-insulin-dependent diabetics:

- (a) diet
- (b) exercise
- (c) illness
- (d) weight
- (e) stress

8

8. Plan one day's meals for an 11-year-old girl with insulin-dependent diabetes. She weighs 95 pounds and is in a growth spurt. She is receiving Lente and Regular insulin. Her diet prescription is for 1,500 calories a day and should include an afternoon and evening snack. Use exchange lists.

8

9. How many calories would you be consuming if you were given a diet that includes 200 gm of carbohydrate, 85 gm of protein, and 55 gm of fat?

9

10. Role play, taking a diet history from one of your classmate "patients." Switch roles and evaluate your efforts. Include teaching a "patient" how to use a diet exchange list.

10

11. State how you would obtain a urine specimen correctly for any two of the patients listed in Objective 10. Ask another student to listen to and evaluate your nursing actions.

Why is urine collected from a drainage bag likely to give an error in testing? What special equipment is needed for collection of a child's urine specimen?

- 11            12. Can you test urine for sugar and acetone accurately every time? Can patients learn from you? How do you know? How do you answer a patient's questions about how and why to test the urine?
- 12            13. Can you teach a patient how to use a Chem bG or Dextrostick to test his or her blood sugar level at home?
14. State the differences between a "fasting blood sugar" and "glucose tolerance test" and "postprandial" and "cortisone-glucose tolerance test" for both the patient and the nurse. Write the normal ranges for each.
- 14            15. State the action/use, and untoward effects of insulin, oral hypoglycemic drugs, and glucagon.
- 15            16. State the onset, peak, and duration of effect of short-, intermediate-, and long-acting insulins and give two examples of drugs in each group.
- 16            17. Can you administer insulin to a patient? Can you draw up and administer the insulin within five minutes? Time yourself.  
Do you check on the patient within an hour after giving the insulin? Why?
- 17            18. Can you teach others (over 12 years old) how to give themselves insulin? How do you evaluate your success?
- 18            19. Label each of the signs and symptoms as hyperglycemia or hypoglycemia and match the best nursing action to each sign or symptom.

*Signs/Symptoms**Nursing Actions*

- |  |  |
|--|--|
| _____ 1. Hunger, tremor, nervousness         | (a) Report immediately                                   |
| _____ 2. Nausea, vomiting, abdominal pain    | (b) Give lump of sugar or juice                          |
| _____ 3. Fruity breath odor                  | (c) Prepare for emergency I.V., fluids, insulin, glucose |
| _____ 4. Dizziness, headache, blurred vision | (d) Prepare for emergency I.V. glucose                   |
| _____ 5. Thirst, parched tongue              |  |
| _____ 6. Kussmaul breathing                  |  |
| _____ 7. Soft eyeballs, coma                 |  |

- 18            20. Look at the patient descriptions on pp. 98–99. Which of the patients might develop ketoacidosis? State why.
- 18            21. Which of the above patients already show signs and symptoms of ketoacidosis and what are they?
- 18            22. What treatment will you anticipate these patients needing immediately?
- 19            23. Why are complications (for example, infections, visual disturbances, vascular problems) likely to occur in patients with diabetes mellitus? How can they be prevented or eased (include teaching the patient and specific nursing care).
- 20            24. Write a nursing care plan for a patient with diabetes. Include a teaching plan.
- 21            25. List two physiologic effects of diabetes that can affect the sexual pleasure of men and women and state how the nurse can be helpful.
- 22            26. Indicate which of the following functions apply to the American Diabetes Association:
1. Publishes a magazine
  2. Administers insulin
  3. Provides foot care
  4. Provides diabetic food exchange lists
  5. Gives emergency care for diabetic coma or insulin reaction
  6. Provides teaching materials for patients about care of feet
  7. Provides educational materials to patients
  8. Carries out research on diabetes mellitus
  9. Provides educational materials for professional educators
  10. Provides antidiabetic drugs for patient use





## LEG VI-C Respiratory Problems

### WHAT WILL I LEARN?

It is difficult to pick up a magazine or look at television without seeing or viewing something about air pollution, smoking, or cough remedies. In other words, we are surrounded with and very much aware of *respiratory problems* almost every day of our lives. Who in your immediate vicinity, this very minute, is coughing or sneezing or breathing noisily? When did you last cough or blow your nose?

Diseases involving this system have been known and treated for centuries. However, it is only recently that improved equipment has made it possible to measure accurately the blood components and test the air exchanged by our lungs with such precision that many patients who formerly might have died with respiratory problems are rehabilitated and alive today. In addition, advances in the field of inhalation therapy have made equipment available to deliver carefully measured quantities of gases, humidity, and medications that literally reach into the respiratory tract to search out and treat the problem.

In this LEG you will learn to recognize a need for oxygen and how a variety of respiratory problems can make the simple act of breathing a chore. The ability of the lung tissue to expand and contract and the presence of liquid secretions can be both a help and a hindrance to patients. Tightly contracted or swollen respiratory passages, thick, sticky secretions, and fluid or dead air filling the air sacs, where the oxygen and carbon dioxide exchange takes place, can put a life in jeopardy. How can you alleviate these problems and the resultant respiratory distress by your nursing care? How do you know which medications and treatments will help the patients in time of emergency? Only a knowledgeable nurse can make effective *decisions*. This LEG will lead you to the knowledge and give you some trial situations in which you can apply that knowledge to patients in respiratory distress as you study your first **Body System**.

The Content of the Objectives for LEG VI-C is:

- Assessing and Preventing Respiratory Problems (1-4)
- Diagnostic Tests and Nursing Responsibilities (5-8)
- Treatment and Medications/COPD (9-11)
- Acute and Chronic Respiratory Disorders (12-18)
- Nursing Interventions for Patients with Dyspnea (19-21)
- Patients Receiving Oxygen and Humidity (22-23)
- Observations for Obstructed Airway (24-25)
- Tracheostomy Care (26-27) *Extra Added Objectives*

This is a long LEG with many "write-in" experiences. As you progress through the LEG, you will find that you can complete some without having to research the answers because you will have studied the material for an earlier Objective. The repetition is

intentional so that by the end of the LEG you have a good basic understanding of the principles of respiratory care and what your nursing observations and goals should be. Don't attempt to read more than two or three articles for each group of Objectives. Answer what questions you can; then attend a group discussion for sharing. This will make the best use of your time.

#### WHAT'S AHEAD IN LATER LEGS

LEG VII-B—*electrolyte imbalance.*

LEG X-A—*lung cancer.*

LEG XII-C—*acute surgical respiratory problems such as laryngectomy and chest surgery, thoracentesis, arterial blood gases, ventilated patients, acute respiratory distress syndrome, and more on tracheostomy care.*

LEG XIII-C—*teaching parents of cystic fibrosis child.*

## OVERVIEW OF LEARNING EXPERIENCES IN LEG VI-C

<i>Objectives</i>	<i>Campus Lab Practice</i>	<i>Group Discussions/Lecture</i>	<i>Clinical Lab Focuses</i>
1. Factors predisposing to respiratory problems 2. Recognizing hypoxemia, hypercapnea 3. Physical assessment 4. Respiratory infection control (H)	B3. Physical assessment of the lungs	B2. Physical assessment of patients with alterations in respiratory functioning	B4. Observe/assist R.T. doing chest assessment Do a chest assessment; check with instructor Observe patients with $lo\ O_2$ , $hi\ CO_2$ levels Identify measures used to decrease spread of respiratory infection Institute some measures to decrease spread
5-7. Diagnostic tests and nursing responsibilities 8. Arterial blood gases related to respiratory acidosis and alkalosis (H)		B1. Respiratory diagnostic tests	B2. Care for patients with respiratory problems Care for patients before and after diagnostic tests Do a physical assessment. Observe for hypoxemia and hypercapnea Observe in pulmonary function lab Look for patients who are collecting sputum specimens
9. Rationales for medical treatment of respiratory problems 10. Respiratory problems and nursing interventions with COPD 11. Aerosol medication and nose drops	B1. Postural drainage, clapping vibrating Teaching breathing exercises		B2. Patient with a nebulizer Care for a child with cystic fibrosis Observe respiratory therapist Care for patient with COPD. Complete a data base form and a nursing care plan Teach abdominal breathing exercises
12. Emotions involved in respiratory distress 13, 14. Cough and control 15. Abnormal sputum 16. Pharmacology 17. Pathophysiology and nursing actions for acute and chronic respiratory disorders 18. Taking action during respiratory distress	B3. Respiratory medications	B1. Nursing patients with respiratory problems GES Objective 17	B3. Care for patients with problems listed in Objective 17. Write a nursing care plan that includes teaching and discharge plan Give medications Interview patients regarding cough problems and solutions. Teach relaxation techniques and effective coughing techniques
19-21. Hostility, fatigue, anorexia due to dyspnea		B1. Caring for and teaching chronically ill respiratory patients GES Objective 20	B2. Care for patients with respiratory problems Visit community agencies
22. Oxygen and humidity 23. Child in a croupette	B1. Oxygen equipment	B2. Caring for a child requiring oxygen therapy	B3. Observe or give care to patients receiving oxygen or humidity Care for children in croupettes Check oxygen concentration in an isolette with an $O_2$ analyzer Observe use of ultrasonic nebulizers or micromists
24. Observations for obstructed airway 25. Report on a child with croup <i>Extra added objectives</i> 26, 27. Tracheostomy care		B1. Children with laryngotracheobronchitis	B2. Care for patient with upper or lower respiratory infection B3. Observe or care for patient with tracheostomy









# NEW TERMS AND ABBREVIATIONS

adventitious sounds	dyspnea	percussion
aerosol	emboli	perfusion
alveoli	excursion	pleural effusion
anoxia	hemoptysis	pleurisy
asphyxia	hypercapnea	postural drainage
asthma	hyperventilation	rales
atelectasis	hypoventilation	rhinorrhea
auscultation	hypoxemia	rhonchi
bronchodilator	hypoxia	spirometry
bronchogram	incentive spirometer	status asthmaticus
bronchoscopy	inhalation therapy	stratigraphy
bronchospasm	inspection	stridor
cannula	IPPB	tidal volume
carbon-dioxide narcosis	isolette	tomography
COPD	laminography	tracheostomy
cor pulmonale (CP)	mechanical ventilation	tuberculosis
coryza	oropharyngeal	tracheotomy
croup	orthopnea	vesicular sounds
croupette	palpation	wheezing



# OBJECTIVES

## *Assessing and Preventing Respiratory Problems*

-   1. Given patient situations, identify those factors that predispose patients to respiratory problems (for example, receiving morphine, aspiration, air pollution).
-   2. Given a patient situation, select those signs and symptoms that indicate the patient is experiencing hypoxemia and/or carbon dioxide retention (hypercapnea.)
-   3. Demonstrate doing a physical assessment that includes lung sounds of a patient with alteration in respiratory functioning. (E)
-   4. List three nursing measures designed to decrease the spread of respiratory infections in the hospital.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** being able to “see inside” the lungs. When you learn to recognize the sounds that indicate the presence of secretions or fluid, you will have gained a very important assessment skill. You will need many practice sessions with a variety of patients in order to understand what you are hearing, so don't become discouraged with your first few. However, it is essential that you first have a very good understanding of the anatomy and physiology of the respiratory system in order to do a good assessment. If you don't, it will be very difficult for you to recognize and understand the signs, symptoms, and lab tests of respiratory problems.

### 2. View audiovisuals

“I am Joe's Lung” (26 min, TR).

“An Orientation to the Lungs and Lung Disease” (ALA).

“An Orientation to the Structure and Function of the Lungs” (ALA).

“Physical Assessment: Examination of the Thorax and Lungs” (15 min, AJN).

“Physical Assessment of the Adult Lung” (N), 1977.

“Physical Assessment of Adequate Oxygenation” (N), 1977.

“Health Assessment: Thorax and Lungs,” module 4 (B), 1983.

“Patient Assessment: Examination of the Chest and Lungs” (AJN), 1977.

“Infection Control I: Basic Concepts of Microbiology (CM).

“Implications for Nursing Care”

“Wound and Skin, and Enteric Precautions”

“Respiratory and Strict Isolation”

“Protective Isolation”

“Respiratory Care: Anatomy and Physiology” (LP).

“Respiratory Care: Ventilation I and II” (LP).

"Pediatric Asthma: Pathophysiology" (14 min, ALA), 1978.

"Physiology of Respiration" (TR).

"Respiratory and Strict Isolation" (CM).

"Physical Assessment: Heart and Lungs (CM)."

1. "Inspection and Palpation of the Lungs and Thorax"

2. and 3. "Percussion and Auscultation of the Lungs and Thorax, Parts 1 and 2"

4. "Assessing Respirations"

**3. Read about hypoxia, hypoxemia, hypercapnea, physical assessment of breath sounds, oxygen, carbon dioxide excess, respiratory problems, isolation techniques** in medical-surgical, fluid and electrolyte, pediatric, and fundamentals references. As you read, fill in the answers to the questions in A-4.

### Books

Bates, Barbara, *A Guide To Physical Examination*, Philadelphia, Lippincott, 1983.

Wade, Jacqueline F., *Respiratory Nursing Care: Physiology and Techniques*, 3rd ed., St. Louis, Mosby, 1982.

Smith, and Duell, 1982, "Assessment of the Chest," p. 179; and Chapter 16, "Alterations in Aeration," p. 545.

### Journals

Ellmyer, Patricia and Thomas, Nancy J., "Plan for a Patchwork of Problems When Your Patient Is Elderly," *Nursing* 82, January, p. 55.

"Knowing What You Hear: A Guide to Assessing Breath and Heart Sounds," Continuing Education issue of *Nursing* 81, November, pp. 64-79 (discusses thoracic landmarks and breath sounds).

Assessment Tip, *Nursing* 83, August, p. 68. (Brief description, normal, abnormal breath sounds.)

**Review** materials on the anatomy and physiology of the respiratory system and normal respiration from Volume 1. Be sure you understand how the respiratory center works, the gross anatomy of the lungs, how the respiratory system protects itself from injury, and the process of ventilation.

**4. (a) Define** the following terms. Add more as you read to assist you in making a physical assessment and charting symptoms.

abdominal (diaphragmatic) respirations

adventitious sounds

apnea

a sigh

auscultation

bradypnea

Cheyne-Stokes respirations

dyspnea

gasping

hypercapnea

hyperpnea

hyperventilation

hypoventilation

Kussmaul's respirations (air hunger)

orthopnea

pleural rub

rales (crackles)

retractions

rhonchi

shortness of breath (SOB)  
stridor  
tachypnea

thoracic respirations  
wheezing

- Persons of what age normally use

Abdominal breathing predominantly? \_\_\_\_\_

Both abdominal breathing and costal? \_\_\_\_\_

Predominantly thoracic breathing? \_\_\_\_\_

What type of breathing would Baby Barbara on p. 123 normally use? What change occurs in her pattern with respiratory distress? \_\_\_\_\_

- (b) Write out the nursing measures that help to prevent each of the following respiratory problems:

	<i>Predisposing Factors</i>	<i>Preventive Interventions</i>
Atelectasis	<ol style="list-style-type: none"><li>1. Mucous plug in bronchiole postoperatively</li><li>2. Immobilized in traction</li><li>3. Elderly woman sits in chair all day</li></ol>	<ol style="list-style-type: none"><li>1. <i>Example:</i> encourage<ol style="list-style-type: none"><li>a. deep inspirations</li><li>b. coughing</li><li>c. good fluid intake to liquefy secretions</li><li>d. turning at least q1hr</li></ol></li><li>2.</li><li>3.</li></ol>
Pulmonary embolism and infarction	<ol style="list-style-type: none"><li>1. Thrombophlebitis developed following being immobilized in traction</li><li>2. Postoperative patient developed phlebitis after discharge</li></ol>	<ol style="list-style-type: none"><li>1. <i>Example:</i><ol style="list-style-type: none"><li>a. active and passive foot and leg exercises</li><li>b. use support stockings</li><li>c. prevent pressure on popliteal area . . .</li></ol></li><li>2.</li></ol>
Aspiration pneumonia	<ol style="list-style-type: none"><li>1. Newborn taking formula with poor sucking reflex</li></ol>	<ol style="list-style-type: none"><li>1. <i>Example:</i> use caution feeding infants—check size of nipple hole and readiness of infant</li></ol>

2. Patient with tracheostomy may aspirate 2.
3. Comatose or semicomatose patient vomits and aspirates his oral secretions 3.

(c) **List** signs of hypoxemia and hypercapnea (carbon dioxide retention). List a variety of causes according to mechanism; for example: respiratory depression, airway obstruction.

	<i>Signs of</i>	<i>Causes</i>
hypoxemia		
hypercapnea		

(d) **List** three measures you would take to *prevent the spread* of microorganisms from Mr. Daingero, who is coughing and expectorating a large amount of sputum, to the next patient in the room or to his visitors or nursing personnel.

- 1.
- 2.
- 3.

List one additional measure that would be taken if Mr. Daingero were placed on infection-control precautions for a respiratory infection.

- 1.

List three measures you could take to *protect* Mrs. Suscept, an elderly surgical patient, from being exposed to microorganisms that might cause a respiratory infection.

- 1.



2.

3.

Which of the above situations are examples of barrier technique (preventing spread of infection)? \_\_\_\_\_

Which of the above demonstrates reverse protection techniques (protecting patient from additional microorganisms in the environment)? \_\_\_\_\_

Which of the above measures would be examples of independent nursing actions? \_\_\_\_\_

Which would require a physician's order? \_\_\_\_\_

## **B. PUTTING IT INTO ACTION! \_\_\_\_\_**

### **1. Underline possible signs of hypoxemia and hypercapnea in the following situations.**

Mr. Stober was admitted with a possible myocardial infarction (heart attack). During the afternoon his BP changed from 102/68 to 120/82 and his pulse from 102 to 87. He fell asleep after receiving Demerol for pain. Two hours later he awoke, and when the nurse came in, he was quite restless, asking to get out of bed to void, and complained of a headache. His pulse was 98.

Mrs. Childer was admitted in labor. After several hours of good labor with a BP of 118/76, her blood pressure changed to 96/68. The fetal heart rate had been around 136 and was noted to decrease to 100, and the fetal activity increased. In a short while the fetal activity stopped.

Johnny, age 7, has a congenital heart defect. He was underweight, his color was slightly cyanotic, and he became short of breath when he ran more than three or four steps. His fingers and toes are clubbed. He is often seen squatting when playing with other children.

Diane, age 3, comes into the pediatric unit at midnight with acute laryngotracheo-bronchitis. Her temperature is 102.8 R, her pulse 130, and respirations 32 and shallow. She is using her accessory neck muscles, the larynx is "tugged" down, the sternum is retracting, and her nostrils are flared with each breath. You can hear the stridor, which has a harsh, high-pitched sound with each inspiration.

Mr. Confuder, age 65, had radical neck surgery. During the surgery he lost quite a bit of blood, and several pints were replaced. Following surgery there was sanguinous drainage. He remained lethargic and often appeared confused and unwilling or unable to follow directions. He was reluctant to get out of bed and complained of being tired. His hemoglobin was checked and found to be 10 gm. He was given respiratory therapy and a blood transfusion, and a noticeable change was seen. A delightful personality emerged, and a rapid return to ambulation and recovery was expected.

Mrs. Scolder has a chronic lung disease and has had repeated hospital admissions. Her respiratory rate is 28, P 110 and BP 160/90 at rest. Her lips and nails are dusky, and her skin is pale. Her speech is interrupted by labored breaths every few words. She refuses to remain with her feet in bed and insists on dangling them over the side even though her feet and ankles are swollen. She rings her bell constantly, and when the nurse appears, she asks for some item that is within her reach. She speaks crossly to everyone and never smiles. Upon waking from her frequent naps, she complains of a headache.

Lack of oxygen can be due to respiratory or circulatory difficulties, which we will discuss further in this LEG and in LEG VII-C. The signs of oxygen insufficiency are the same, however, regardless of the cause. Learn them! Remember them! When you see a patient exhibiting such behavior, showing the signs, question the cause. Notice the degree of change. Describe it well so that others can also benefit from your observations.

Which of the above patients need *protection from* respiratory infections? \_\_\_\_\_  
Which might *spread* an infection? \_\_\_\_\_

**2. Attend** a small group discussion on “Physical Assessment of Patients with Alterations in Respiratory Functioning.” Come prepared with information about each of the following:

*interview* (what questions will you ask?)

*observation* (what physical clues are related to respiratory dysfunction?)

*auscultation* (what are the classifications of the four normal breath sounds and what are the abnormal or adventitious sounds?)

*inspection* (how should a normal chest appear during inspiration and expiration?)

*percussion* (how does normal lung tissue sound during inspiration and expiration?)

*palpation* (what type of information can you obtain from palpation?)

- Anticipate the type of breath sounds you might hear in the patients described in B-1.
- How do the following factors affect your assessment of skin color:  

lighting	temperature of the room
positioning	emotional state of the patient
- Where would you look for the most noticeable changes in color? Describe pallor as it appears in black skin; in brown skin.
- Discuss some factors that would interfere with assessment. Why is chest assessment important?
- Discuss the effects of hyperventilation and hypoventilation, on the body. Begin with the physiology of ventilation and exchange of gases, causes of hyper- and hypoventilation, the resultant symptoms and arterial blood gas analysis results, and what nursing interventions are indicated when each occurs.

- If you have invited a respiratory specialist to come to your class as a resource person, be sure to make an audio or videotape of the presentation and discussion for your reference library. After you have practiced doing an assessment, you will probably want to review the tape as new questions occur to you.

**3. Practice** "Physical Assessment of the Lungs," in campus lab. Go through all the steps so you develop a pattern that you can use with patients. Try to find a student with coryza. Listen to the upper breath sounds. Any wheezes or crackles? What other abnormal sounds are present? Write them down and compare your assessment with another student's. Practice charting.

Review the following example:

Baby Barbara, 6 weeks old, was admitted from the ER. She was having continuous coughing episodes and turned cyanotic. Her mother had been using a bulb syringe to suction out large amounts of thick secretions.

*Diagnosis:* pneumonia.

The nurses caring for her kept the following notes. Chart this information using your own facility forms. Then, using the assessments, review the baby's response to treatment. What more do you want to know? How, in a real situation, could you have gotten this needed information?

7	PR-149-42 Color pink. On apnea monitor. Mother here.
7:30	Coughing spasm. Face cyanotic, suctioned sm amt clear white mucus. Pink. Lung sounds clear. Dr. here. Bld for CBC, ABGs, Chest x-ray done.
8	Ampicillin 200 mg I.M. and Gentamycin 10 mg I.M.
9	TPR 100-171-51. Diaper wet. Isomil 120 cc.
10	TPR 99 <sup>+</sup> -164-50. Coughing, suctioned sm amt cl wh mucus. Sm yellow stool.
11	Coughing, dusky, suctioned, cried lustily.
11:30	Coughing, suctioned, color pink. Diaper wet.
12	TPR 99 <sup>+</sup> -127-35. Sleeping.
1:30	Coughing, cyanotic, circumoral pallor and crowing noises, suctioned, flushed, cried, HR 100, sweat test to lab, throat culture to R/O whooping cough. Postural drainage $\bar{c}$ suctioning, sm amt cl wh mucus, pink, diaper wet.
2	TPR 99 <sup>+</sup> -166-39. Fussy, nursed by mother, color good.
4	Purple, gagging. Turned upside down, patted between scapula, suctioned $\bar{c}$ relief. Placed in mist tent $\bar{c}$ 30% O <sub>2</sub> . Antibiotic order changed. Erythromycin 100 mg p.o. q.i.d. started.
4:30	TPR 98 <sup>+</sup> -94-20. Isomil 45 cc, diaper wet.
4:45	PR 146-44. Sleeping.












- |       |  |
|-------|--|
| 5     | Choking in sleep. Percussed back, relief.  |
| 6     | PR 144-25. Diaper wet.   |
| 7     | TPR 99 <sup>4</sup> -188-36. Coughing, color improved $\bar{c}$ suctioning. Dr. here. Mother breastfeeding.                                  |
| 10    | P.T. here. Metaproterenol 0.05 in 2.0 cc saline by nebulizer. Coughing $\bar{s}$ color change. PR 140-46. Lung sounds not cleared. No fever. |
| 10:30 | Sleeping in tent.  |

- Do you know all the abbreviations used? If not, find out what they are.
  - What is the classification of the drug Metaproterenol? What is the % of the solution being administered? Is this appropriate for Baby Barbara?
  - Describe an apnea monitor.
  - What is Isomil?
  - What would you expect the blood results to be?
  - Describe a mist tent. How does this differ from a croupette?
4. Plan for a clinical experience.
- ▲ Observe and assist a respiratory therapist doing chest assessments.
  - ▲ Observe for hypoxemia and hypercapnea. Do a physical assessment of the lungs. Compare your assessment with one done by a staff nurse. Compare your observations with the patient's lab results. Are your observations consistent with the lab findings?
  - ▲ Identify measures being used to decrease the spread of respiratory infection.
  - ▲ Institute some measures to decrease spread of infection.



## OBJECTIVES

### *Diagnostic Tests and Nursing Responsibilities*

-   5. Given a list of statements, select one that best describes the purposes for each of the following tests: bronchoscopy, bronchogram, arterial blood gas analysis, thoracentesis, collection of sputum specimens, pulmonary function tests, and tuberculin skin test.
-    6. State the nurse's primary responsibilities to the patient and family before and after each of the following procedures is performed and the rationale: thoracentesis, bronchoscopy, bronchogram.
-   7. In correct sequence, list the actions you would take to collect an early morning sputum specimen and/or a 24-hr specimen prior to beginning a patient on an antibiotic.
-    8. Given the results of an arterial blood gas analysis for a patient with alteration in acid-base balance due to impaired gas exchange, state whether the values indicate respiratory acidosis or alkalosis, what accompanying signs and symptoms should be assessed, and what nursing interventions are indicated. 

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** what diagnostic tests mean to persons with difficult or painful breathing. How can you make these procedures less of an ordeal for your patients? Learn the purpose of each; find out what you are responsible for doing before and after the test; do it and then spend the rest of the time observing and supporting your patient. Don't forget that your patient may fear the results, too.

Think about sputum! What feelings does it raise? Does it remind you of someone always spitting or clearing his throat and sinuses? Is it a pleasant thought? What if someone asked you to save some of your sputum so it could be looked at? Rather personal, eh? Do you recall the embarrassment of walking down a hallway in a doctor's office holding your bottle of urine for the world to see? Well, what if your sputum were in a clear glass jar and you had to take it everywhere with you; to class, out to lunch, etc.? Would you have feelings about it? Why? Why are our body secretions and excretions hidden? Yes, it is a learned cultural characteristic. Are patients immune to these feelings about their specimens? No! Think about their privacy. Help them avoid embarrassing situations. *You* take action to make sputum collection more esthetic.

## 2. View audiovisuals.

"Pulmonary Function Tests" (LP).

"Gas Exchange I and II" (LP).

"Blood Gas Interpretation: Evaluation of Acid-Base Disturbances" (LP).

"Pulmonary Function Testing in Children" (80 slides, 30 min, ALA), 1979.

"Basic Pulmonary Function Testing" (72 slides, 27 min, ALA), 1978.

"Interpretation of Blood Gases" (51 slides, 35 min, ALA), 1975.

"Fluid and Electrolytes—Respiratory Acidosis and Alkalosis" (B), 1980.

## 3. Read about *respiratory acidosis and alkalosis diagnostic tests* listed in Objectives 5 and 6 and *preparation of patients for procedures* in laboratory tests, medical-surgical, and fundamentals references.

Review LEG III-C on *anxiety*.

Preview LEG XII-C on ventilation and arterial blood gases.

### Books

McFarland and Grant, 1982, Chapter 6, "Acid-Base Balance."

Smith and Duell, 1982, "Collecting Sputum," p. 566.

### Journals

Cameron, T. J., "Fiberoptic Bronchoscopy," *AJN*, August 1981, p. 1462.

Hollen, Sr. Eileen, et al. "Bronchoscopy," *Nursing* 82, June, p. 120.

—"Pulmonary Function Tests in Patient Care," *AJN*, June 1980, p. 1135.

—"Knowing What You Hear: A Guide to Assessing Breath and Heart Sounds," *Nursing* 81, November, pp. 64-79 (discusses thoracic landmarks and breath sounds)

## 4. Apply the *Facts About Respiratory Diagnostic Tests* to the questions on P. 127.

### FACTS ABOUT RESPIRATORY DIAGNOSTIC TESTS

1. Normally, the respiratory center is stimulated by a low oxygen concentration and a high carbon dioxide level in the blood.
2. The body then breathes faster and deeper and exhales the excess CO<sub>2</sub>.
3. When the carbon dioxide levels in the blood remain high for long periods of time, the respiratory center becomes insensitive to this stimulus (carbon dioxide narcosis).
4. The kidneys attempt to help by sending out bicarbonate (HCO<sub>3</sub>), which neutralizes the CO<sub>2</sub> for awhile. The excess CO<sub>2</sub> then combines with H<sub>2</sub>O in the blood and becomes carbonic acid. The normal blood pH (measurement of acidity) is between 7.38 and 7.42. Higher numbers mean alkalosis, lower numbers indicate acidosis.
5. When the carbon dioxide levels in

the blood remain high, the pH of the blood falls below 7.38, and respiratory acidosis results.

6. Analysis of arterial blood gases shows the levels of  $\text{CO}_2$ ,  $\text{O}_2$ , pH, and  $\text{HCO}_3$ .
7. Excessive amounts of  $\text{CO}_2$  in the blood can cause death and coma.
8. When administering oxygen to a patient, the arterial oxygen level tells whether the oxygen reached the blood.
9. Patients with a high carbon dioxide level should receive only low-flow oxygen. A chronic  $\text{CO}_2$  retainer must never get a high  $\text{O}_2$  concentration (unless he or she is on a ventilator continuously). IPPB treatments cannot make it safe for a  $\text{CO}_2$  retainer to get high percentages of oxygen.
10. Spirometry measures the amount of air that moves in and out—it measures the lungs' volumes and capacities.
11. Smoking reduces the lung's function and capacity.
12. Reduced respiratory function predisposes patients to postoperative respiratory problems.
13. A bronchoscopy allows the physician to remove a small portion of tissue (biopsy) to study, to view the bronchus and/or remove secretions or foreign materials.

- (a) What two stimuli make us breathe faster and deeper? \_\_\_\_\_
- (b) What happens to the excess  $\text{CO}_2$  in our bodies? \_\_\_\_\_
- (c) What occurs if the lung function is so poor that  $\text{CO}_2$  cannot be exhaled, as with emphysema? \_\_\_\_\_
- (d) How does the doctor know how much bicarbonate the kidneys are sending out into the blood? \_\_\_\_\_
- (e) The arterial blood gas measurement lab report returned with the following:  
(Write in your hospital laboratory's normal values.)

results: $\text{Po}_2$ .....	44 mm Hg	(normal is _____)
$\text{Pco}_2$ .....	66 mm Hg	(normal is _____)
$\text{HCO}_3$ .....	34 m Eq	(normal is _____)
pH.....	7.39	(normal is _____)
oxygen saturation .....	80%	(normal is _____)

Is the oxygen level higher or lower than normal? (The P in  $\text{Po}_2$  stands for partial pressure) \_\_\_\_\_

Is the  $\text{CO}_2$  high or low? \_\_\_\_\_

What symptoms would we look for if we saw this lab report? (Review your list in A-4, Objectives, 1-4, this LEG.) \_\_\_\_\_

What does pH tell us? Is the patient in respiratory acidosis or alkalosis? \_\_\_\_\_

(In LEG VII-B you will learn more about the pH and acidosis. This exercise is included to get you started thinking about the subject.)

What effects do hypo- and hyperventilation have on the acid-base balance? What would cause respiratory acidosis in a patient with poor gas exchange? Which imbalance occurs most frequently?

Complete the chart on page 128.

	<i>Arterial Blood Gas Results</i>	<i>Signs, Symptoms</i>	<i>Goals or Evaluation Criteria</i>	<i>Nursing Interventions</i>
Respiratory acidosis	pH PCO <sub>2</sub> HCO <sub>3</sub>			
Respiratory alkalosis	pH PCO <sub>2</sub> HCO <sub>3</sub>			

(f) Why are the following tests ordered?

Mr. Dingo, admitted to the hospital for surgery, has a *spirometry* test ordered. He smokes a pack of cigarettes a day. \_\_\_\_\_

Mrs. Clave, admitted a week ago for treatment of emphysema, has become lethargic. Her respirations are slow and shallow. The doctor ordered an *arterial blood gas analysis* to be done. \_\_\_\_\_

Mr. Webb has complained of coughing for two weeks without relief with antitussives. The doctor plans to do a *bronchoscopy* this morning. \_\_\_\_\_

(g) Why is cyanosis a late sign of hypoxemia? What is the PO<sub>2</sub> likely to be when cyanosis is present? At what PO<sub>2</sub> should treatment begin?

What are the causes of hypoxemia with a normal PCO<sub>2</sub> or a ↓ PCO<sub>2</sub>?

5. Write answers to these questions:

- What will you do if the patient is unable to produce a sputum specimen and he or she has had the specimen cup for two days?
- How do you know if your patient needs a sputum specimen? Where are the lab slips kept in your hospital? How are they attached to the specimen, and what record is kept of the specimens being sent to the lab?
- What is the youngest age that a child could be taught to raise sputum for a specimen?
- What if there is food or tobacco in the specimen? Do you send it? How are specimens collected when the patient is in isolation?
- What do you expect the sputum from a patient with chronic lung disease or with pulmonary edema to look like after a bronchoscopy?
- What organisms do you expect to find in the respiratory tract normally? With infection?



Name: Joseph Webb	
DOCTORS' ORDERS	
Date & hour	Doctors Medication and Special orders Room No. 202.a
4/11 9AM.	Bronchoscopy in A.M.
	Have consent form signed
	NPO @ midnight
	Atropine gr 1/150 }
	Demerol 75 mgm } I.M. on call
	J. Johnson M.D.
4/12 11:30 AM	NPO until gag reflex returns
	Resume previous orders
	Report any signs of fresh bleeding or
	respiratory difficulty J. Johnson M.D.

## B. PUTTING IT INTO ACTION!

1. **Attend** a small group discussion on "Respiratory Diagnostic Tests." Assume you are the nurse caring for Mr. Webb. His medical orders appear above. Discuss how you would prepare him and his family for this procedure the evening before.

### PROBLEMS FOR SOLVING

- What specific fears might he have about the procedure or about the results? How can you find out what he already knows and what concerns he has? What specific information do you know to give him?
- How is the patient positioned for this procedure? What type of anesthetic is used? How does anxiety affect the patient's comfort during the procedure? Try lying flat and clenching your fists. Then relax and breathe through your nose with your mouth open. Could a patient practice this? When should you teach this technique?
- How do you observe, describe, and report bleeding? Respiratory distress? How do you know when the gag reflex has returned?
- How would you feel if you were told you were to have this procedure done tomorrow? What specifically would help you?
- What is the rationale for each of the pre- and postoperative orders? How will you answer each of Mr. Webb's questions:

Will I be awake?

Will it hurt?

How long will it take?

When will the biopsy report be back?

Am I supposed to be spitting up bloody mucus?









When will I be able to eat?

**2. Plan for a clinical experience.**

- ▲ Observe a bronchoscopy in the doctor's office or operating room. Read the medical orders and patient's history to obtain a complete picture of the reasons for the procedure and nursing care required before and afterward. Compare rigid metal bronchoscopes with fiberoptic scopes.
- ▲ Care for patients before or after diagnostic procedures. Learn their reactions and needs. Chart your observations and record your nursing care.
- ▲ Care for patients with respiratory problems. Look at their charts to find diagnostic test results and compare them with the written observations of the patient's progress in the nursing and medical notes. Ask doctors about additional tests if ordered on their patients.
- ▲ Observe in a pulmonary function lab while tests are being done on patients. Find out how the test results will affect the patient's medical treatment. Take a pulmonary function test yourself if possible.
- ▲ Look for patients who are collecting sputum specimens. Look at the date on their lab slip. How old is it?
- ▲ Read about the reason for their needing a specimen and what medication and treatment they are receiving that might help or hinder their being able to cough up a specimen. What system is used in your clinical agency to cover when an antibiotic is started and stopped. How is this information recorded?
- ▲ Determine how you might help the patient expectorate more easily if he or she is having trouble obtaining a specimen. Would forcing fluids help? Evaluate the patient's attitude toward the subject. Write a NCP showing ways of meeting the basic needs.
- ▲ Look at lab slips that have been returned from the lab on sputum specimens. How long does it take to receive a culture and sensitivity report? What information does the sensitivity test give you? What information did the nurse supply the lab with the specimen?

## OBJECTIVES

### *Treatment and Medications/COPD*

-    9. Describe the purpose for each of the following medical orders for patients with inadequate pulmonary ventilation due to obstruction, secretions, and/or infections: oxygen, emetic, sedation, force fluids, elevate head of bed, bronchodilator, antibiotic, antitussive, expectorant, narcotic, antihistamine, adrenocorticosteroid, postural drainage, breathing exercises, cold humidification, sputum specimen, and aerosol therapy.
-   10. Describe four respiratory problems that persons with chronic obstructive pulmonary disease (COPD) experience and list nursing interventions appropriate for each problem including the physiological cause of the problem.
-    11. Demonstrate and/or describe in writing teaching a person self-administration of an aerosol medication and nose drops in order to obtain the maximum benefit from them.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the desperate feeling you would have if you were unable to get adequate breath. Simulate the agony and discomfort. Try breathing with shallow breaths. Use a thick cloth over your mouth. Hold your breath. Imagine the relief medication or treatment could give. Anxiety and fear increase the agony. These patients need your help.

2. **Talk** with people who have chronic breathing problems. What tips can they give you to help your patients? Listen and observe them as they take their medications and treatment.

3. **View** audiovisuals.

"The Prevention Factor" (28 min, MSD): Pneumonia.

"Respiratory Distress" (18 min, SQ): Diagnosis by inspection and arterial blood analysis.

"Smoking/Emphysema: A Fight for Breath" (12 min, UM, MH), 1975.

"Emphysema—The Facts" (15 min, UMTV), 1973.

"Nursing Care of Children with Respiratory Problems" (32 min, UMTV), 1980.

"To Breathe, to Breathe, To Live" (BAN).

"Chronic Bronchitis and Pulmonary Emphysema, Parts I and II" (24 min and 29 min, GSA).

"Pulmonary Disease: The Hidden Enemy" (90 min, TR).

"Cystic Fibrosis" (TR).

"The Story of Susan McKellar" (20 min, F), 1982: A 24-year-old nurse with cystic fibrosis.

"The Lungs: An Inside Story" (10 min, UM), 1976.

"Chest Drainage: Principles" (LP).

"Chest Drainage: Practice" (LP).  
 "Mechanical Ventilation" (LP).  
 "Intermittent Positive Pressure Breathing" (LP).  
 "Restrictive Conditions of the Lung (Lobar Restrictive Conditions; Care of Patients with Respiratory Disease," Part 4 (AJN).  
 "Care of Patients with Respiratory Disease: Chronic Obstructive Lung Disease," Part 5 (AJN).  
 "Aerosol Therapy" (LP).  
 "Chest Therapy: Coughing and Deep Breathing" (LP).  
 "Chest Therapy: Bronchial Drainage, Percussion, and Vibration" (LP).  
 "Chest Therapy: Suctioning" (LP).  
 "Chronic Obstructive Pulmonary Disease" (GSA), 1976.  
 "Chronic Interstitial Pulmonary Fibrosis" (GSA), 1976.  
 "An Orientation to Chronic Obstructive Pulmonary Disease and Lung Cancer" (ALA).  
 "An Orientation to Asthma" (ALA).  
 "An Orientation to Occupational and Infectious Lung Diseases" (ALA).

4. Read about *COPD*, such as *asthma*, *emphysema*, *cystic fibrosis*, and *bronchitis* in medical-surgical, pediatric, and geriatric nursing references. Drug information is packaged with nebulizers containing bronchodilating medication sold over the counter in drugstores. Good instructions on use of nebulizer usually accompany these. Look at the different brands and read what medications they contain. See how many generic names you recognize.

#### Books

Smith, and Duell, 1982, "Performing Percussion, Vibration, and Drainage (PVD)," p. 554; "Providing Intermittent Positive Pressure Breathing (IPPB)," p. 615.

#### Journals

Callahan, M., "COPD Makes a Bad First Impression," *Nursing* 82, May, p. 68.  
 Dewey, J., "18 Ways to Live with Asthma," *Nursing* 75, April, p. 48 (this is old but good).  
 Dunlap, C. I., and Marchionno, P., "Help Your COPD Patient Take a Better Breath with Inhalers," *Nursing* 83, May, pp. 42-43 (tips on using inhalers).  
 Hudgel, D. W., and Madsen, L. A., "Acute and Chronic Asthma: A Guide to Intervention, *AJN*, October 1980, p. 1791.  
 Kaufman, J., "COPD: Better Living Through Teaching," *Nursing* 80, March, p. 57.  
 Rifas, E., "How You and Your Patient Can Manage Dyspnea," *Nursing* 80, June, p. 34.  
 Sjoberg, E. L., "Nursing Diagnosis and the COPD Patient," *AJN*, February 1983, pp. 244-248 (short examples of assessment with nursing diagnoses and interventions for COPD patients).  
 Webber-Jones, J., "Over-the-Counter Bronchodilators," *Nursing* 80, January, p. 34.

5. Write the answers to these questions as you read articles from the list and chapters in your medical-surgical textbooks on adults and children with respiratory problems.

(a) How are each of these treatments helpful to patients with COPD?

oxygen

force fluids

elevate head of bed



## breathing exercises

- |  |                                  |  |
|--|----------------------------------|--|
|  |                                  | <i>List Ways to Provide<br/>IPPB in the<br/>Hospital</i>     |
| <i>Patients Needing IPPB</i>                     | <i>List Reasons for IPPB</i>     |  |
| child with asthma _____                          | 1.                               | a.   |
| adult with pneumonia ____                        |                                  |  |
| adult with emphysema ____                        | 2.                               | b.   |
| adult with atelectasis ____                      |                                  |  |
| adult following surgery ____                     | 3.                               | c.   |
|  | 4.                               | d.   |
|  |                                  |  |
|  |                                  | <i>List Ways to Provide<br/>Humidity in the<br/>Hospital</i> |
| <i>Patients Needing Humidity</i>                 | <i>List Reasons for Humidity</i> |  |
| child with laryngotracheo-<br>bronchitis _____   | 5.                               | a.   |
| patient with _____                               | 6.                               | b.   |
| tracheostomy _____                               |                                  |  |
| patient with asthma _____                        | 7.                               | c.   |
| adult following thyroidec-<br>tomy surgery _____ |                                  | d.   |
| child with bronchitis ____                       |                                  | e.   |
| adult with pneumonia ____                        |                                  | f.   |
| child with "croup" _____                         |                                  |  |
|  |                                  | <i>At Home</i>   |
|  |                                  | g.   |
|  |                                  | h.   |

LEG VI-C / Objectives 9–11 133

with COPD. The developmental aspects differ. Use this Guide in your group discussion with Objectives 12–18.

## **B. PUTTING IT INTO ACTION!**

---

**1. Practice** postural drainage, clapping, and vibrating for all lobes of the lung. How will this procedure differ according to the age of the patient? Where will you find information on this procedure in the hospital?

Remain in the basic drainage position at the end for 10 minutes. Time yourself and see how long the entire procedure takes. How does the treatment make you feel? Are you a smoker?















Practice teaching breathing exercises to another person, preferably a smoker. Ask him or her to assume the role of patient and to ask you questions, and so on. What problems do you encounter when teaching someone who has not asked for the information or help? Do you need to spend some time just talking about what good will come from doing the exercises? And listening to the person's excuses or delaying tactics? Yes, this first step may be the most important in helping a person learn new skills that may help him or her remain in a better state of health and out of the hospital longer. Think it through now so that you will be ready to go when you have a real patient.

**2. Plan** for a clinical experience.

- ▲ Find a patient who is experienced with a nebulizer and ask to be shown how it is used and how the medication makes the patient feel.
- ▲ Care for a child with cystic fibrosis. Talk with the family and find out what health measures are being followed at home to prevent infections and provide for respiratory drainage. What medications are being administered either orally or by aerosol to thin the secretions? How is the family coping emotionally with this problem?
- ▲ Accompany a respiratory therapist who is giving inhalation treatments and doing chest physiotherapy. Observe patients with respiratory problems, see how they are instructed about their treatments, and how they tolerate them. While you are with the patients, practice your observations in Objective 2; find out why they have their problems (Objective 1); notice the results of their treatment and what medications are used in the nebulizer (Objective 9). Make the best use of your time to see a variety of respiratory problems. Find out the responsibilities of the respiratory therapist and respiratory technician. Make a video or audiotape of the therapist's demonstrations if possible. Find out what hazards are associated with nebulization, humidification, oxygen therapy, and positive pressure ventilation.
- ▲ Care for a patient with COPD. Complete a Data Base and Nursing Care Plan. Use forms in To the Student or one provided by your instructor. Include the family if possible.
- ▲ Teach abdominal breathing exercises to a patient and family members. Discuss pulmonary irritants that should be avoided and ways to prevent infections and other complications that result from impaired respiratory function.

## OBJECTIVES

### *Acute and Chronic Respiratory Disorders*

-   12. *Describe how emotions affect respiratory distress.*
-   13. *List three measures that will increase the productivity of a cough.*
-   14. *List three measures that will help control an irritating, nonproductive cough.*
-   15. *Given a situation in which a patient expectorates abnormal sputum, select from a list of possible actions the best ones to take and state your rationale.*
-   16. *Given a list of medications supplied by your instructor, state their classifications and action/use for respiratory problems, method of administration, one major side effect, and two nursing implications.*
-   17. *Given a description of a child or adult with an alteration in respiratory functioning caused by one of the following disorders, explain the pathophysiology of the disorder and describe appropriate nursing care, which includes teaching and discharge planning: influenza, asthma, pneumonias, cystic fibrosis, emphysema, bronchitis, pleurisy, tuberculosis.*
-   18. *Given medications and treatments and descriptions of patients showing a variety of respiratory distress, state the best action the nurse could take in each situation and include your rationale and charting.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** a cough: hacking, deep, productive, nonproductive, tiring, and unpleasant for both patient and contacts. The trick is to help the patient get rid of the cough and its cause as quickly and as efficiently as possible. Your goal is to increase the productivity of the cough and yet prevent fatigue and irritation from it.

2. **View** audiovisuals.

"Understanding Psychosocial Problems of the Chronic Respiratory Patient" (TR), 1984.

"Pathophysiology of Pneumonia" (TR), 1984.

"Care of Your Patient with Pneumonia" (TR), 1984.

"Pharmacologic Therapy of Pediatric Asthma" (ALA), 1982.

"Bronchiolitis" (ALA), 1981.

"Factors Influencing the Response of Asthma Therapy" (ALA), 1979.

"Outpatient Management of the Child with Asthma" (ALA), 1979.

3. Read about *emphysema, influenza, cystic fibrosis, bronchitis, pleurisy, tuberculosis, asthma, laryngotracheobronchitis, pneumonia* in medical-surgical, pediatric, and pharmacology references.

### Books

Deford, Frank, *Alex, The Life of a Child*, Viking, 1983. A father's guilt, anger, and finally acceptance tell the courageous life of his daughter in 196 pages (cystic fibrosis).  
 Loeb, Suzanne, et al., *The Nurse's Drug Handbook*, 3rd ed., New York, Wiley, 1983.  
 Whitson, Betty Jo, and McFarlane, Judith M., *The Pediatric Nursing Skills Manual*, New York, Wiley, 1980. "Oxygenation Needs of the Child": Oxygen therapy, pp. 117-131; tracheostomy care, pp. 131-148; CPR, pp. 149-158; clearing the airway, pp. 159-169; postural drainage, pp. 169-179.

### Journals

Hudgel, D. W., and Madsen, Lorie A. "Acute and Chronic Asthma," *AJN*, October 1980, p. 1791.  
 Mancini, Mary R. "Fighting the Frustrations of Status Asthmaticus," *Nursing* 82, March, p. 58.  
 Rifas, Ellene M. "How You and Your Patient Can Manage Dyspnea," *Nursing* 80, June, p. 34.

4. Answer the following questions:

- (a) List the changes that occur in your breathing when you become anxious.
- (b) List actions a nurse could take to:
  - Help a patient have confidence that a nurse will be available when assistance is needed.
  - Reduce anxiety during acute respiratory distress.
- (c) How does taking a deep breath effect the bronchi? What effect does pursed lip breathing have on the bronchioles and the respiratory rate? Which breathing exercises include pursed lip breathing?
- (d) List all the measures you know that will help to liquify a patient's secretions and increase expectoration. Which can be used at home and need to be taught to the patient and family members? Which involve special equipment?
- (e) List all the nursing measures you can find to help a patient who is experiencing a constant, unproductive cough that is exhausting him and irritating his family when he is at home. What measures can be taught and used at home?
- (f) List all of the possible nursing actions you might take when discovering any of the following types of sputum. Then write the numbers of the actions you would take with each type of sputum.

<i>Sputum</i>	<i>Nursing Actions</i>
rusty-colored, thick _____	1. <i>Example:</i> Observe patient for dyspnea, color, skin, temperature.
purulent, light-green _____	
thick yellow _____	2.



thin, frothy, excessive streaks of bright-red \_\_\_\_\_

3.

dark-red clots, bright-red liquid \_\_\_\_\_

4.

5.

6.

5. **Look** at the Kardexes for the patients described below. Why do you think each medication and treatment is ordered? What side effects or untoward effects will you be alert for with each? What equipment is needed to administer each (for example, Sus-phrine, Aminophylline, suppositories)? Know the answers to these questions before attending the group discussion.

How do the actions of codeine, ammonium chloride, and ipecac change when the dosage is increased? What side effect will codeine have on the intestinal system? How can you prevent this problem?

Mrs. Paula Darvy, age 34, became extremely ill at home one evening with chest pains, temperature of 103, and a painful cough. Her husband brought her to the emergency room where she was given oxygen; blood and sputum cultures were taken. She was given an injection of an antibiotic and transferred to her room with a portable oxygen tank and mask.

Mr. Anthony Paoli, age 62, was admitted for the fifth time with chronic emphysema. He found it increasingly difficult to climb stairs without becoming extremely short of breath. During his office visit today, the physician suggested he be admitted to the hospital for respiratory monitoring and care.

Tommy Stewart, age 4, has cystic fibrosis. He has been under treatment since he was a few months old. His mother supervises his respiratory treatment at home and is quite adept in helping him perform his postural drainage exercises. He has developed a respiratory infection and is hospitalized for its treatment and prevention of further complications. He is placed in a croupette upon admission.

Darlene Thomas, age 17, has had asthma all her life. She has been hospitalized twice before for acute episodes, associated with infection of her upper respiratory tract. She is angry at being hospitalized as she wants to go away to college in a few weeks and gain more independence from her parents. Now she sees herself more dependent than ever.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a small group discussion on "Nursing Patients with Respiratory Problems," to simulate actual clinical experiences with the patients described in the following Kardexes.

## NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS				
1/7	Unable to effectively clear lungs of secretions Related to tenacious secretions + weak cough		Assess amt., color, consistency of secretions				
1/7	Fever Related to pneumonia		Assess for SK ↑ Temp Temp qid Alcohol sponges for T ↑ 102° Keep room temp cool				
DATE	MEDICATIONS	DATE	TREATMENTS				
1/7	Afrin qtz. ti ea. nostril q8h. Terbutaline 2.5 mg. p.o. q12h. Tylenol 600 mg. p.o. T ↑ 101° Ampicillin 500 mg. p.o. q6h. Tussend cap. ti p.o. q4h. prn. Tagamet 300 mg. 1/2hr. a.c. + h.s.	1/7	Saline mouth rinse + gargle qid				
DATE	I.V. THERAPY	DATE	LABORATORY				
1/6	D-5-0.45 Saline at 50cc/hr.	1/6	Theophylline level Sputum C+S				
DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION				
1/6	LITERS/MIN: 2-4 L prn. Ultrasonic nebulizer mask 2 cool mist at 6-10 L/min. tid. IPPB: Alupent 0.3cc in 2cc NS q4h. prn follow E postural drainage LL	DATE	DISCHARGE PLANNING				
FOOD ALLERGY		DATE	HYGIENE	DATE	X-RAY		
DIET		1/6	BED BATH	1/7	Chest PA		
1/6	Bland		TUB/SHOWER	DATE	ACTIVITIES		
FLUIDS			MOUTH CARE	1/6	BED REST		
1/6	I & O q8h.		OTHER	1/6	AMBULATE BRP		
RESTRICT		DATE	DRAINAGE - TUBES		TURN		
1/7	FORCE encourage				ROM		
7-3	ml.	DATE	BLADDER - BOWEL		RESTRAINTS		
3-11	ml.		FOLEY		TRACTION		
11-7	ml.		CATH CARE		LAPIDUS	DATE	OHF
	S & A		BOWEL CARE		PT		
	CHEM. STRIP	LAST BM 1/6		DATE	VITAL SIGNS q4h.		
	HEMOCCULT	WEIGHT 94. <input checked="" type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS		
SURGERIES AND DATES						ISOLATION	
DX LLL pneumonia						AGE 34	
ROOM NAME Darvey, Paula						DOCTOR Racquel	
						ADMIT DATE 1-6-84	

NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS	
2/4	may become dehydrated Related to ↓ sensorium, ↓ thirst mechanism + mouth breathing		↑ fluids to 2500 cc daily Assess mucous membranes, I + O	
	Malnourished, ↓ muscle for ↑ Resp. work Related to anorexia, fatigue		Offer 6 fdqs daily Feed if too tired to feed self	
2/5	fatigue, exertional dyspnea Related to ↓ O <sub>2</sub> available to tissues		Assess Resp. rate + SOB Arrange Rest periods between activities + before eating Keep communication, visits brief	
DATE	MEDICATIONS	DATE	TREATMENTS	
2/4	Theodur 1 p.o. 200 mg. q8h. Lasix 40 mg. p.o. bid. Digoxin 0.25 mg. p.o. qd. Ampicillin 250 mg. p.o. qid. Dalmane 15 mg. p.o. hs prn.			
DATE	I.V. THERAPY	DATE	LABORATORY	
2/4	hep loc	2/4	ABGs on room air Screening spirometry	
DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION	
2/4	LITERS/MIN: 2L prn	2/6	P.T. to teach breathing exercises	
	JPPB: Terbutaline via nebulizer 0.4cc in 2cc NS qid	DATE	DISCHARGE PLANNING	
FOOD ALLERGY	DATE	HYGIENE	DATE	X-RAY
DIET	2/4	BED BATH precess p.m. bath	2/4	Chest PA, lat.
1000 mg. Sodium Soft		TUB/SHOWER	DATE	ACTIVITIES
FLUIDS		MOUTH CARE		BED REST
2/4 I & O q8h.		OTHER dentures	2/4	AMBULATE BRP
RESTRICT	DATE	DRAINAGE - TUBES		TURN
2/4 FORCE 2500 cc/day				ROM
7-3 ml.	DATE	BLADDER - BOWEL		RESTRAINTS
3-11 ml.		FOLEY		TRACTION
11-7 ml.		CATH CARE		LAPIDUS DATE OHF
S & A		BOWEL CARE		PT
CHEM. STRIP	LAST BM 2/4		DATE	VITAL SIGNS qid
HEMOCCULT	WEIGHT qd <input checked="" type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS
SURGERIES AND DATES				ISOLATION
DX Pulmonary Emphysema				AGE 62
ROOM	NAME Paoli, Anthony	DOCTOR Jacoby	ADMIT DATE 2-4-84	

NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS
12/18	Susceptible to Resp. infections		Keep away from children & colds
	Resp. distress related to thick tenacious secretions + bronchial damage		Assess breath sounds q shift
	Stress in Family related to chr. illness of child		↑ fluids to 2000cc
			Help family talk together & express feelings + concerns
			Help family spend time w/ ea child q day
			Observe for s/s of ↑ ↓ stress

DATE	MEDICATIONS	DATE	TREATMENTS
12/18	Benylin Exp. 30 p.o. q6h		
	Ampicillin 125 mg. p.o. q6h		
	Pancreatin 300 mg. p.o. & ea meal		
	Vidaylin Drops 1cc/day		

DATE	I.V. THERAPY	DATE	LABORATORY
		12/18	Sweat test
			Throat culture

DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION
12/18	LITERS/MIN: Croupette & high humidity		
	Ultrasonic nebulizer 10 min. qid.		
	IPPB: & Mucomyst followed by post drainage qid	DATE	DISCHARGE PLANNING

FOOD ALLERGY	DATE	HYGIENE	DATE	X-RAY
DIET	12/18	BED BATH		
12/18 Hi cal, hi prot, mod. fat		TUB/SHOWER	DATE	ACTIVITIES
FLUIDS		MOUTH CARE		BED REST
I & O		OTHER	12/18	AMBULATE to tolerance
RESTRICT	DATE	DRAINAGE - TUBES		TURN
12/18 FORCE ↑ 2000cc/day				ROM
7-3 ml.	DATE	BLADDER - BOWEL		RESTRAINTS
3-11 ml.		FOLEY		TRACTION
11-7 ml.		CATH CARE		LAPIDUS DATE OHF
S & A		BOWEL CARE		PT
CHEM. STRIP	LAST BM		DATE	VITAL SIGNS
HEMOCCULT	WEIGHT <input type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS

SURGERIES AND DATES			ISOLATION
DX Cystic Fibrosis			AGE 4
ROOM	NAME Stewart, Tommy	DOCTOR Hannees	ADMIT DATE 12-18-83



## NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS
2/3	Allergic to dust related to hyperactive airways		Keep environment allergen free Damp dust furniture daily
	Resp. distress Related to bronchospasm		Assess for S/S Resp. distress q2h Hi Semi-fowlers position O <sub>2</sub> , IPPB as ordered
2/4	anxiety Related to difficulty breathing during acute attack		Stay c pt during acute attack Teach how to slow breathing rate
	likes to sleep late - Close door 5 Am.		

DATE	MEDICATIONS	DATE	TREATMENTS
2/3	Alupent Medihaler q3-4h. prn Tedral - 25 tab. t p.o. q4h. prn dyspnea Sas-phrine 0.3cc s.c. prn dyspnea Decadron 2mg. p.o. tid. x5 da. Cromolyn 20mg. inhaler q6h Cefzol qm. t '10' q8h.		

DATE	I.V. THERAPY	DATE	LABORATORY
2/3	hep lac	2/4	pulm. fx testing WBC + diff

DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION
2/3	LITERS/MIN: 4 L prn		
	IPPB: 2 H <sub>2</sub> O tid + prn.		

FOOD ALLERGY		DATE	HYGIENE	DATE	X-RAY
DIET		2/3	BED BATH Self	2/4	Chest
2/3	Reg.		TUB/SHOWER	DATE	ACTIVITIES
FLUIDS			MOUTH CARE		BED REST
	I & O		OTHER	2/3	AMBULATE ad lib
RESTRICT		DATE	DRAINAGE - TUBES		TURN
FORCE					ROM
7-3	ml.	DATE	BLADDER - BOWEL		RESTRAINTS
3-11	ml.		FOLEY		TRACTION
11-7	ml.		CATH CARE		LAPIDUS DATE OHF
	S & A		BOWEL CARE		PT
CHEM. STRIP		LAST BM		DATE	VITAL SIGNS q8h.
HEMOCCULT		WEIGHT <input type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS

SURGERIES AND DATES	ISOLATION
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DX Acute Asthma, Upper Respiratory Infection		AGE 17	
ROOM	NAME Thomas, Darlene	DOCTOR Raber	ADMIT DATE 2/3/84

Decide what action you would take when each of the following situations occurs and be able to state your rationale.

Chart to include your nursing assessments (using the correct terms) and a record of your actions. Write the charting on the blackboard or below. If your group is large enough, break into six small groups for 10 min and each take a situation to problem solve and write charting for.

It is 10 A.M., and you are in Mr. Paoli's room. He appears to be sleeping quietly, but when you try to waken him for his medication, you cannot arouse him.

It is midnight, and Mr. Paoli is unable to catch his breath. He is sitting up at the edge of the bed gasping for air and coughing.

It is 4 P.M. and Miss Thomas's light goes on. When you arrive, she is leaning over the over-bed table wheezing and in obvious distress. She is holding her nebulizer and has just used it as you walk in the door.

It is 8 A.M., and you are in Miss Thomas's room. You notice that she is wheezing slightly and ask her if she has used her nebulizer. She says no. You recall the day before when she required Sus-phrine for a severe attack and are wondering if you should encourage her to either take her Tedral or use her nebulizer now to prevent an attack.

You are to begin Tommy's postural drainage exercises at 9 A.M. The inhalation therapist will be up at 9:30 A.M. to give the IPPB treatment. It is now 7:30 A.M. You are also to help Tommy with his breakfast and give him a bath and care for the bed and croupette. How will you organize your activities? How and when will you force fluids between 7:30 and noon?

It is 2 A.M., and as you pass Mrs. Darvy's room, you hear a dry, hacking cough. When you go in, you find her sitting upright in bed coughing. She says she is hot and asks you to turn the air conditioning up.

### Charting:

## PROBLEMS FOR SOLVING

- How do you think you will react when you are responsible for assisting a patient who needs oxygen? How will you be able to remain calm and remember the intended purposes of each medication and treatment? How will your actions, nonverbal behavior, and words affect the patient's anxiety and respiratory distress? How would you react to finding a patient in the middle of an asthma attack?
- Which of the patients could be safely placed in a room together? (Disregard age and sex for a moment and think about infection precautions.)
- What abnormal breath sounds do you think you would hear with each patient?
- Imagine that Paula Darvy is an 8-year-old with pneumococcal pneumonia. How would the symptoms differ? What major problems would be present and what assessments would you expect to make? Which nursing goals and interventions would be the same and which different because of age?
- What are the major areas of teaching that would be important for each patient with disease conditions listed in Objective 17?
- What economic, social, and emotional pressures are these patients and their significant others having to cope with? How could discharge planning help them? See sample form used for discharge planning in the Student Introduction.

2. **Talk** with persons who have had acute respiratory distress at some time, possibly an uncle with emphysema, a student with asthma, a friend with pneumonia, a mother whose child had an infection. Learn what the person was feeling during the acute period of distress and what actions on the part of others were *helpful*: Maybe having someone around but not talking, maybe a radio playing softly, or maybe being positioned comfortably in order to remain upright for an hour or more were helpful actions. Try to find out what were *harmful* actions, such as someone fussing with the covers and standing around awkwardly, staring at you. Use these bits of information to improve your approach to persons in respiratory distress.

3. **Check out** self-practice materials "Respiratory Medications." You will find samples of nebulizers such as are used in your hospital. Examine them and learn how they work. Practice instructing another person in their use. Become familiar with all the medications and their form. How will each be administered?









**4. Plan for a clinical experience.**

- ▲ Care for patients with the alterations in respiratory functioning listed in Objective 17. Write a nursing care plan for your patient that includes teaching and discharge planning. Include family members; assess learning needs, including any prior instruction in pulmonary hygiene, medications, and what advice is given if an emergency occurs in the home.
- ▲ Give medications to patients with respiratory distress.
- ▲ Interview patients about measures they use to increase the productivity of their cough and how they reduce irritating, unproductive coughs. Inquire about how they feel emotions affect their respiratory problems and what they do to relax. If it is appropriate, teach some of the effective coughing and relaxation techniques you have learned. Listen to their breath sounds before and after coughing to determine if secretions are removed and lungs reexpanded.



## OBJECTIVES

### *Nursing Interventions for Patients with Dyspnea*

-    19. Describe two positive interventions a nurse could use with a patient with hostility related to impaired respiratory functioning.
-    20. Given a patient experiencing fatigue related to dyspnea, demonstrate or describe in writing teaching the patient and family ways to save energy while enabling the patient to meet his or her own daily needs and maintain the highest possible level of wellness.
-   21. Given a patient experiencing anorexia due to dyspnea, coughing, and expectoration, describe two measures to increase interest in food and intake of food and fluid.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** how you'd feel if you were dyspneic. Ask some people who have had asthma or emphysema to describe their feelings. Try these for starters: fear, anxiety, fatigue, worry, anger, and hostility. You have much to do to help a person who is overwhelmed with respiratory problems. Anticipate the feelings and take whatever nursing actions are indicated. These patients should not have to ask for help.

2. **Read** about nursing care of patients with *respiratory problems* and *hostility* in medical-surgical, pediatric, nurse-patient relationship, psychology, and pharmacology references.

#### **Programmed**

"Understanding Hostility," *AJN* reprint, 1967.

3. **Answer** these questions and bring to your group discussion.

List some characteristics of respirations that would make you believe they were symptoms of respiratory distress.

What is the difference between dyspnea and acute respiratory insufficiency or failure? State the nursing measures you would take for each and why.

List the problems that you imagine a patient, as described in Objectives 20 and 21, would have with his or her daily needs (e.g., dry mouth, which might decrease appetite). Across from each problem briefly state the nursing interventions that might alleviate each problem.

*Example:* Difficulty bending over to tie his or her shoes.

Exhale first, then bend down.

Study the nursing care plan on a patient with COPD in the To The Student section. List additional problems that would be present if the patient were an infant or toddler. Why would an asthmatic, after a difficult dyspneic night, complain of nausea, vomiting, and abdominal discomfort?

What are the "dyspnea positions"?

Imagine you were caring for an infant in a croupette with an I.V. going in the scalp vein, restrained on his or her back. You are instructed to feed the child. What precautions do you take? What if the infant begins to vomit?

### COMMENTS ON PATIENTS EXPRESSING HOSTILITY

*Many persons with COPD are difficult to understand and cope with. The following guidelines may help you to assist patients in meeting their basic needs for acceptance and love.*

*The physical handicap causes feelings of hostility, fear, anger, anxiety, depression, and grief. These feelings are often focused on the nurse. Examples of feelings:*

*Fear of suffocation from difficulty in breathing, especially at night or when alone.*

*Feelings of sadness, helplessness, and loneliness accompany depression.*

*Speech is slow, hygiene is neglected, eating and sleeping are affected.*

*Several losses have actually occurred: The patient's role in the family, employment, company of loved ones, self-sufficiency, and power.*

*Attitude of withdrawal, which in turn causes the family to also withdraw.*

### Guidelines for the Nurse

*Look beyond the behavior and meet the real needs. Listen to the patient's anxieties so he or she can, in turn, relax and breathe better.*

*Set limits while always providing support. Avoid overindulgence and punishment.*

*Depression is replaced by anger as the patient improves. Don't withdraw your attention too soon. Explain the change to the patient's family.*

*Family members may expect too much from the patient because they don't understand his or her disease.*

*Encourage the patient to develop interest in a hobby or some area that will occupy the mind and prevent the patient from constantly focusing on the disease.*

*Help family members to accept the need for changing family roles, and the limitations that the patient's disease imposes.*

## B. PUTTING IT INTO ACTION!

1. **Attend** a small group discussion on "Caring for and Teaching Chronically Ill Respiratory Patients." Act out the following play between a patient and the two different nursing students. Stop the play as directed and discuss the questions.

### *Persons Speaking      Conversation*

### *Discussion*

*Scene:* Patient lying flat in bed with breakfast tray untouched. Nurse standing beside bed.

Nurse #1 Let me help you sit up to eat (she is timid and sweet).

Patient I don't want to eat. (*cough, cough*) I'm too winded.

Nurse #1 You must eat!

Patient Leave me alone!

Nurse #1 Your food will get cold.

Patient I'm still coughing. It tires me out so. I'll eat later.

STOP.....

Is coughing to be expected of this patient? What observations should the nurse be making of this patient? What is the patient talking about? The nurse? How do you think the nurse feels? What would you do now?

*Scene:* Ten minutes later. Same nursing student plus another enter room. Patient still flat in bed.

Nurse #1 Any better now? (*still timid*)

Patient No. Still too tired to eat.

Nurse #2 Doing a lot of coughing this morning? (*says with conviction*)

Patient Yes. Can't eat. Too tired to sit up.

Nurse #2 You don't want to eat because you are too tired to sit on the edge of the bed or in the chair?

Patient Yes.

Nurse #2 How would it be if we rolled the head of the bed up and propped you with pillows. I'll get you some mouth wash; then a little hot coffee and cereal might help loosen that phlegm.

Patient O.K., as long as I don't have to sit on the side of the bed.

STOP.....

Why did the patient agree to eat for this nurse and not for the first one? What did the nurse do differently? Did you recognize any therapeutic communication? Give an example.

*Scene:* Patient sitting up in bed eating cereal. Nurse #2 at side.

Nurse #2 Let me get you a straw for the coffee. Then  
you won't have to lift the cup each time  
to drink it.

Patient Fine.

*Later:* Following breakfast. Patient flat in bed again. Nurse at side.

Nurse #1 How about a bath now? (*still apologetic*)

Patient Let me rest. I'll bathe later.

Nurse #1 But it will make you feel better.

Patient I can't. Leave me alone.

STOP..... What do you think about the nurse's actions? How do you think she feels? What should she do now (other than cry)? What would you have done in this situation?

*Thirty minutes later.* Same scene as above. Nurse #1 has clean linen in arms.

Patient Why do you keep bothering me? I can't get any rest.

Nurse #1 I'm going to begin your bath now. I will do most of it and will work quickly so you can have a long rest period afterward. (*with conviction*)

Nurse #1 assembles equipment, puts bath blanket on patient. Is unbuttoning pajamas.

Patient All right. If you insist. Don't take off my pajamas. I haven't had them off since I came here. I'll get a cold. Just wash my hands and face. I'm not dirty.

Nurse #1 I've covered you with this thick cotton blanket so that you will stay warm while I wash you. I've also turned the air conditioning off in the room. The water is hot, and I'll work quickly. Let's try with just the top off.

Patient OK

STOP..... What limits has this nurse set for this patient? What effect has it had? Why?

*Scene:* Nurse has soapy washcloth in hand.

Patient I'll wash my face and arms if you just give me the rag.

Nurse #1 Fine.

Patient That hot water feels good. (*Silence—working, etc.*)

Patient You from around here?

Nurse #1 Yes—and you?  
Continuing with bath.

Patient No. I'm from Vermont. Worked up there until this thing crippled me up so. Was



a sergeant in the police force. Doc said a warm climate would do me more good, so here I am. Third time I've been here in the hospital.

Nurse #1 You've been here twice before?

Patient Yes, I can only stay home so long, then I get so I can't even make it to the bathroom without getting completely winded. Then the doc puts me in here for a week (pause for breathe), gives me the breathing machine, and that helps. But each time it's worse. Each time I wonder if it's the last and if I'll ever go home again. (*pause to breathe—nurse looking at patient with interest showing in eyes*) But you don't want to hear about my problems. You've got enough to do if all your patients are as nasty as me.

Nurse #1 It gets discouraging for you, and you get irritable because you feel so bad.

Patient Yes, I spend all my energy just to breathe, and I'm always tired.

Nurse #1 We know that, and the other nurses and I are going to try to plan the activities so that you have an hour of rest without interruption between them. I will wait to change the bed now until you need to get up to the bathroom. Ring and the aide or myself will help you and change your sheets. How does that sound?

Patient Fine.

Nurse #1 I'd like you to drink this glass of water now. Everytime we come in I'd like you to drink something. All the liquid will help to loosen that phlegm and make it easier for you to cough it up. What things do you especially like to drink?

Patient Coffee, black, and ginger ale. Also cold pineapple juice.

Nurse #1 Fine. I'll see that we have some on the floor with your name on it. I will be back in an hour with your medicine.

Patient Don't bother to bring that liquid stuff. I won't drink it.

STOP.....

Nurse #1 You don't want the liquid medicine?

What would you do?

Can you list the nursing care this patient received? Did you recognize any therapeutic communication skills? What was the result? What teaching occurred?

Patient      It makes me sick to my stomach.

Nurse #2 I'll see if I can find out why. See you in an hour.

Scene: Nurse looking in PDR.

Nurse #2 (to herself) This expectorant he is taking may be irritating the stomach. Since he is on a regular diet, I think I'll try giving it to him with milk and see if that helps.

STOP..... What would you chart in the nurses notes for the morning?

- Discuss the nursing care plan of a patient with COPD found in the To the Student Introduction section.

What learning needs are present?

Who will initiate teaching abdominal breathing and resistive breathing exercises?  
Should the wife or husband be present for the teaching sessions?

How will you explain the value of walking and breathing exercises to the patient and his or her spouse? Role play some examples of teaching.

Anticipate the nursing care you would give to this patient between 7 A.M. and 3 P.M.  
Use a blackboard, listing in time sequence your nursing actions, rationales, and observations for the day. Take turns adding to the list.

## 2. Plan for a clinical experience.

### ▲ Care for patients with respiratory problems.

- Begin a nursing care plan before beginning to care for the patient. See nursing care plans in Introduction to Volume II or use one furnished by your instructor.
- Record your conversation with your patient whenever you feel you need to explore the dynamics of the interaction. Use the recording form from Volume I or one supplied by your instructor. Recognize your own feelings of frustration, anger, discouragement, and disgust as well as your positive feelings. All feelings affect your behavior toward the patient. Chart on your patients. Include examples of behavior.

### ▲ Attend postconference and share your experiences. Discuss avoidance and other methods of treating patients that cause unpleasant or uncomfortable feelings in the nursing staff.

### ▲ Accompany a therapist from a respiratory service in your community. Find out what services are supplied: teaching, evaluation of learning or health care, and so on. Find out the qualifications of persons supplying the services.

- ▲ Visit pulmonary rehabilitation centers. Find out the services available. Find out what services are available and how patients are referred. Accompany therapists on home visits. If a patient is to go home with respiratory treatment, where does he or she obtain the equipment? Who will assist the patient and family in the home?

What signs and symptoms should alert the patient to seek medical help?

- ▲ Visit your Lung Association. Find out what educational programs are available for patients with COPD and tuberculosis. Imagine that a good friend or your friend's father was diagnosed as having advanced emphysema or tuberculosis. What community resources are available for education, rehabilitation, and treatment in your area?





## OBJECTIVES

### *Patients Receiving Oxygen and Humidity*



22. Demonstrate caring for a patient receiving oxygen and/or humidity via mask, cannula, hood, tent, mist mask, trach mist, T-piece, or isolette, taking measures to ensure that the patient is receiving the prescribed amount of oxygen and that the equipment is not causing the patient discomfort or injury.



23. Demonstrate caring for a child in a croupette, including turning the patient, changing the linen, and maintaining the optimum moisture and temperature control.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. Think about persons who need oxygen and/or humidity. What a relief it must be to receive the needed treatment. Each method has its own problems, for example, skin irritation from the plastic or loneliness and dimming of visibility and sound within the croupette. Take time to make these treatments as comfortable as possible for each patient and go back to be sure your comfort measures really work.

2. View audiovisuals.

"Oxygen Therapy: Principles" (LP).

"Oxygen Therapy: Practice" (LP).

"Oxygen Administration" (TR).

3. Read about *oxygen therapy, humidification, ultrasonic, croupette, and isolette* in medical-surgical and pediatric references.

#### Books

Smith, and Duell, 1982, "Administering Oxygen Therapy," p. 568.

#### Journals

Carberry, L. J., and Carberry, C. N., "Carbon Monoxide, The Silent Killer," *JNC*, July 1981 (easy-to-read description of CO, the symptoms, first aid, and treatment at hospital).

Fuchs, P., "Getting the Best Out of Oxygen Delivery Systems," *Nursing 80*, December, pp. 34-43 (photos and descriptions of cannula, catheter, and oxygen masks, humidifiers, and nebulizers; chart: oxygen percent by liter flow).

Promisloff, R., "Administering Oxygen Safely: When, Why, How," *Nursing 80*, October, p. 54.

"Pulmonary Oxygen Toxicity and Other Hazards of Oxygen Therapy," *AJN*, December 1980, p. 2213.

Worthington, Laura, "Hypoxemia: Giving Oxygen Isn't Enough," *R.N.*, May 1980, p. 48.

**4. Answer the following questions.**

- (a) List three ways to liquefy a patient's respiratory secretions other than with medications and state why secretions need to be liquefied. (Review Objective 9.)
- (b) Imagine that you were working in the Emergency Room and an unconscious patient was admitted with broken bones, dyspnea, and cyanosis. Oxygen is ordered. What clues would make you suspect COPD? (You should try to make use of all the information you studied in the earlier Objectives in this LEG as you near the end of it.)
- (c) List the principles or guidelines that a nurse would follow in giving oxygen to a patient with COPD:
- (d) List the dangers of oxygen therapy:

**B. PUTTING IT INTO ACTION! \_\_\_\_\_**

**1. Check out for self-practice "Oxygen Equipment."**

- Practice wearing the mask at home for an hour. Draw the elastic tight enough for it to stay secure. How does it feel over the ears? To get the proper feeling if your hair is long, pull it back from the ears so the hair is not padding the skin around the ears. This is where patients, especially men with conservative hair styles, develop skin irritations. Try padding with cotton balls, then with gauze squares, and see how the ears feel.
- Develop skill in placing the mask and padding it on another person. In actual practice you would encourage the patients to keep their hair over the ears for padding.
- Try the same thing with the cannula. How does it feel in the nostrils? The prongs may be too long for some patients and require trimming by the nurse or the oxygen therapist. Become observant and look at the fit of the cannula on your patients.
- Try it on different family members and see the difference. How does the skin feel under the mask? Hot, sweaty? What might you use on the skin to keep it cool and dry?

When you complete your practice with the mask and cannula, wash them with hot soapy water and dry. Then cleanse with the antiseptic sponges. You don't want to spread respiratory infections. Your time is too valuable to spend it being sick.

- 2. Attend a small group discussion on "Caring for a Child Requiring Oxygen Therapy."** Imagine that the 10-year-old with asthma described in the nursing care plan below

was your clinical assignment for tomorrow. Plan together how you would care for him, what problems you would anticipate, and what approaches you would take with both the child and the mother. Compare your ideas.

Date    Medical Orders

3/27    Clear liquid diet.  
          Force fluids.  
          Complete bedrest.  
          Elevate head of bed.  
          Special back care.  
          I & O.  
          IPPB with Bronkosol tid.  
          V.S. q2h until stable.  
          IPPB treatments prn for acute distress.  
          O<sub>2</sub> per cannula prn.  
          Medihaler prn q4h for acute distress.

<i>Date</i>	<i>Patient Problem</i>	<i>Nursing Interventions</i>
3-27	Apprehension	Explain all procedures before instituting.
	Needs fluids ↑	Offer fluids frequently; likes ginger ale.
	Overprotective mother	Strive to gain mother's confidence and assure her that patient will be well-cared for in her absence. Encourage independence of patient.
	<i>Short-Term Goals:</i> To relieve acute resp. symptoms.	
	<i>Long-Term Goals:</i> Help mother and child to accept this condition and achieve independence and normal life style in home and community.	

List some additional problems that would probably be present on a chalk board along with the approaches you would take.

**3. Plan** for a clinical experience. Look up the answers to as many of the following questions as possible before attending lab.

- ▲ Observe or give care to adults and children receiving oxygen and/or humidity. What types of problems do each of the patients have with each type of equipment? What is the advantage/disadvantage of the tent over the cannula or mask, the mask over the cannula, and so on. How do you prevent the patient in the tent from becoming chilled? How do you recognize oxygen-induced apnea? Who is most likely to become apneic and why?

Find out how the wall humidifier works. Who has the responsibility of keeping it full? Check the policy in your hospital. Practice your finger-tip skills in adjusting the rate of flow. How is ultrasonic equipment used to supply humidity? What is the advantage of a Venturi-type mask?

- ▲ Observe patients recently removed from oxygen and/or humidity. How will you evaluate whether they need to return? Review Objective 2.
- ▲ Find out how the croupette works. Who has the responsibility of adding ice? How is the drainage tubing connected? What is your responsibility? Become thoroughly familiar with this apparatus so you can adjust it easily and spend more time with the child.
- ▲ Observe or give care to children in croupettes receiving oxygen or air. How do the children seem to feel inside the croupette? What makes you think this? How long can they be out, if at all? What is the purpose of giving them some time outside the croupette? What do you do for them at that time? Are any of the children to be in their tents for 8 hours, then out for 8? Why?

What would you do with a 2-year-old patient with croup who continually crawls out of his tent?

What safety measures must be taken in caring for a child in a croupette with oxygen? Include toys, call bells, TV remote controls, propped bottles, sharp objects, side rails.

- ▲ Check the oxygen concentration in an isolette with an oxygen analyzer. Why is it necessary? Without a doctor's order, you must always keep the concentration below what percentage? Why?
- ▲ Observe the use of ultrasonic nebulizers or micromists. What are the dangers of overhydration in infants? In your hospital, what would the nurse's responsibility be if the doctor ordered Ultrasonic 10 min q1hr?
- ▲ Observe in a pediatric ICU. You will study more about children in acute distress in LEG XIII-B.



# OBJECTIVES

## *Observations for Obstructed Airway*



24. List four symptoms that would alert you to suspect an obstructed airway and chart the symptoms.



25. Given an end of shift report on a child with acute inflammation and infection of the larynx, trachea, and bronchial area, identify and list any missing information you would require in order to determine changes in the child's respiratory distress.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. Think about how you feel when your throat constricts over a piece of pepper or food. A moment of panic occurs before you can say to yourself, "Relax and it will ease up." Your eyes water, and you reach for a glass of water.

Compare these feelings to those of a child who becomes extremely apprehensive when his or her breathing is blocked. Your facial expressions and calm actions will do much to eliminate the fear factor.

2. View audiovisuals.

"Aspiration of Foreign Bodies in Children" (ALA), 1981.

"Upper Airway Obstruction" (AJN), 1982.

3. Read about *respiratory obstruction* and the *conditions listed in A-2* in medical-surgical, and pediatric references.

4. List the signs and symptoms that would alert you to a possible respiratory obstruction for each of the following patients. Describe the best position to place the patient in to prevent obstruction and state why. (If you know *why* the obstruction occurs, you will know how to position patients.)

*Symptoms*

*Position*

Child with laryngotracheobronchitis

Adult immediately following surgery

Elderly person with a stroke (semiconscious)

Patient with status asthmaticus, any age

Patient with tracheostomy, any age

Patient having anaphylactic reaction to a drug

Describe nursing care indicated specifically in relation to positioning, oxygen need, fluids, and relief from symptoms.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a small group discussion on "Children with Laryngotracheobronchitis." To prepare for this discussion, write the clinical manifestations and pathophysiology of a patient you have cared for with laryngotracheobronchitis (or create a situation from a patient chart and Kardex). Describe the treatment and goals and the nursing responsibilities and rationale. What breath sound would you expect to hear? What is *inspiratory stridor*?

Write out an end-of-shift report on a child with laryngotracheobronchitis, including the following information: voice and color, TPR, type of respiration, activity. Would you want to see this child, or would a verbal report be sufficient? Why?

What information would need to be included in the nurse's notes? How often would you chart on the patient? What legal implications are present?

2. **Plan** for a clinical experience.

▲ Care for a child with acute upper or lower respiratory infection. Write a nursing care plan.

▲ Review your **Clinical Performance Expectations** for Level VI.

## EXTRA ADDED OBJECTIVES

### *Tracheostomy Care*



26. Demonstrate and/or role play suctioning a tracheostomy using medical or surgical aseptic technique without causing injury to the mucosa or hypoxia to the patient and preventing growth and/or spread of pathogens. \*



27. Demonstrate and/or role play caring for a patient with a tracheostomy including cleaning the inner cannula, changing the dressing and turning the patient, and oral hygiene. \*

[Note: In Volume IV, LEG XII-C you will have additional Objectives on tracheostomy care, including inflating and deflating cuffs and positioning the patient for effective suctioning.]

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

##### 1. View audiovisuals.

"Tracheobronchial Suctioning Techniques" (BD), 1979.

"Tracheostomy Care: Principles" (LP).

"Tracheostomy Care: Practice" (LP).

"Endotracheal Tubes" (AJN), 1982.

"Tracheostomy" (AJN), 1982.

"Suctioning" (AJN), 1982.

##### 2. Read about *tracheostomy care* and *throat irrigations* in medical-surgical, pediatric, and hospital nursing procedure references.

Preview Volume III, LEG X-C, and Volume IV, LEG XII-C.

##### Books

Blondis and Jackson 1982, "Tracheotomy Patients," p. 57.

Smith and Duell, 1982, "Caring for Client with Tracheostomy," p. 587, "Performing Tracheostomy Suctioning," p. 562.

##### Journals

Brown, Iva, "Tracheostomy Care," *Nursing* 82, May, p. 44.

D'Agostino, Janet, "Oxygen Toxicity," *Nursing* 83, July, p. 55.

"You Can Breathe New Life into Your COPD Patients," *Nursing* 83, September, p. 72.

Fuchs, Patricia, "Providing Tracheostomy Care," *Nursing* 83, April, p. 139.

Fuchs, Patricia, "Streamlining Your Suctioning Techniques. Part 1, Nasotracheal Suctioning," *Nursing* 84, May, pp. 55-64. (pictorial presentation of the procedure).

\* Will be a required Objective in Volume III.

Fuchs, Patricia, "Streamlining Your Suctioning Techniques. Part 2 Endotracheal Suctioning," *Nursing* 84, June, pp. 46-51 (presents procedure in pictures).  
 Humbrecht, Barbara, and Van Parys, Eileen, "How to Use Heart and Breath Sounds as Part of Nursing Care Plan," *Nursing* 82, April, pp. 34-42.  
 Rifas, Ellene M., "Asthma," *Nursing* 83, April, p. 77.

**3. Make a chart to compare medical and surgical aseptic technique for suctioning a tracheostomy. Write the purpose, equipment, advantages, and disadvantages of each.**

	<i>Techniques</i>	
	<i>Medical Aseptic</i>	<i>Surgical Aseptic</i>
Purpose		
Equipment		
Advantages		
Disadvantages		

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

**1. Check out** self-practice materials on "Tracheostomy Care." Handle the equipment, identify each part of the cannula, and take it apart: Practice cleaning the inner cannula with the gauze and pipe cleaners. Find out what works best for you before you are with an actual patient. A used inner cannula will be slippery. How will you keep from dropping it or keep the patient from coughing it out?

**2. Practice** in your campus lab: Describe your actions and state your rationale to an observer as you do the following:

- Suction "Mrs. Chase"
- Clean an inner cannula, and change the dressing
- Turn a tracheostomy patient with humidified air apparatus attached
- Throat irrigation.

**3. Plan** for a clinical experience.

▲ **Observe or care** for a patient with a tracheostomy.

- Observe how activity affects the need for suctioning.
- Find out what procedure is being used for maintaining asepsis in the tracheal area during suctioning and dressing change.
- Evaluate the patient's reaction to the tracheostomy.



# LEG VI-C

## Respiratory Problems

### HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VI-C are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the "doing" Objectives. Use a separate sheet of paper for these answers and then use the answers in clinical or campus lab for your own evaluation.

#### *Objectives*

#### *Questions*

1

1. What factors are present in each of the following situations that predispose the patients to respiratory problems?

(a) Stroke patient receiving tube feeding. He is lifted into a chair bid for one hour.

(b) Postoperative patient complaining of pain every three hours and receiving morphine regularly. She complains of pain each time she is asked to move and refuses to cough. She tries to deep breathe.

(c) Patient was to receive oxygen by nasal cannula. The nurse lubricated the cannula with mineral oil and inserted it.

(d) Young boy with fractured leg was placed in traction for two days prior to surgery.

(e) Patient had a tracheotomy done in order to breathe for a period of two weeks. She was supposed to have a humidifier on at all times, but she was so restless she kept pulling it off. She had difficulty swallowing and had a low fluid intake.

2

2. Mr. Lucky, a patient with emphysema, was admitted and was sitting upright on the edge of the bed. His color was dusky, and he was coughing vigorously, expectorating thick yellow sputum. His chest was "barrel-shaped." With each breath you could see the neck muscles pulling tight

as all his energies were concentrated on breathing. He called you "Annie" and asked where your mother was. BP 180/90; P 115. List the signs that could indicate hypoxemia and hypercapnea.

- 2      3. You are caring for Rachel, age 4, with pneumococcal pneumonia. She has been nauseated and vomiting, complains that her chest hurts, her cheeks are flushed, and her temperature is 39.4C. Which of the following changes would make you suspect increasing hypoxemia:
- (a) Increased restlessness, increased pulse rate, cyanosis, and irritability.
  - (b) Diarrhea and abdominal cramps, loss of appetite.
  - (c) Coughing up pink-tinged sputum.
  - (d) Dyspneic and unable to eat her breakfast.
- 3      4. When you listen to Mr. Lucky's chest you hear expiratory wheezing, rhonchi, and decreased breath sounds. Which of the following descriptions best describe rhonchi?
- (a) Soft, whisperlike sounds over most of the chest.
  - (b) Low pitched rattling sounds at the end of expiration.
  - (c) Harsh tubularlike sounds over trachea.
  - (d) Crowing sound on inspiration.
- 4      5. How can Rachel spread her respiratory infection?  
List two ways.
- 1.
  - 2.
- How can the nurse prevent this spread of microorganisms to him- or herself or any other person in the vicinity? List three ways.
- a.
  - b.
  - c.
- 5      6. Match the following tests with the purposes at the right.
- |                             |  |
|-----------------------------|--|
| pulmonary function tests    | (a) To remove a foreign object, mucous plug, or take a tissue biopsy.  |
| arterial blood gas analysis | (b) To determine acid-base balance in body.                            |
| bronchoscopy                | (c) To determine the degree of pulmonary impairment.                   |
|                             | (d) To measure the amount of carbon dioxide accumulating in the blood. |
- 6      7. State the nurse's primary responsibility to the patient prior to a bron-

choscopy and following it to prevent complications and describe what complications are being prevented.

7

8. From the following list, add, delete, or change the actions to correctly describe each step in collecting an early-morning sputum specimen in correct sequence.

1. Fill out lab slip and post.
2. Take container to patient and leave on beside.
3. Remove the patient's water at midnight.
4. Collect specimen before breakfast.
5. Attach specimen to lab slip with rubber band and send to lab.

8

9. The arterial blood gas analysis results for Mr. Lucky (see question 2) are as follows:

pH 7.35 (normal 7.38–7.42)

PCO<sub>2</sub> 65 (normal 38–42)

HCO<sub>3</sub> 32 (normal 22–26 mEq/l)

Is he in danger of developing respiratory acidosis or respiratory alkalosis?

8

10. When you go into Mr. Lucky's room to remove his breakfast tray, you discover that he has fallen asleep without eating. What is the best action for you to take next and why?

- (a) Remove the tray and keep the food hot in the kitchen.
- (b) Wake him up and try to get him to eat.
- (c) Lower the head of the bed and position him for sleeping.
- (d) Try to wake him up and assess his level of consciousness and vital signs.

9

11. Briefly describe the purpose for each of the following orders for a patient with impaired respiratory function caused by asthma, emphysema, or pneumonia:

oxygen

expectorant

emetic

narcotic

sedation

antihistamine

force fluids

corticosteroid

elevate head of bed

postural drainage

bronchodilator

IPPB

antibiotic

cold humidification

antitussive

breathing exercises

- 10            12. Describe four respiratory problems that develop in persons with impaired gas exchange due to COPD and state why. Write a nursing care plan based on your problems including nursing goals and intervention, rationale, and evaluation criteria.
- 11            13. Write the steps you would include when teaching another person to use a nebulizer. Ask another person to evaluate your teaching, using the steps as a checklist. Be prepared to state your rationale.
- 12            14. Describe two effects of anxiety on respiratory distress.
- 13            15. List three measures that will increase the productivity of a cough.  
              (a)  
              (b)  
              (c)
- 14            16. While caring for Mr. Lucky, you learn that he is coughing frequently and unproductively during the night. What is the best reason for finding ways to reduce his coughing?  
              (a) It uses up his energy and creates fatigue.  
              (b) It keeps the other patients awake.  
              (c) It makes his throat sore.  
              (d) It spreads infectious organisms.
- 14            17. List three measures that will help control his cough.  
              (a)  
              (b)  
              (c)



- 15      18. Refer to Kardex for Mrs. Paula Darvy. The morning after her late night admission she is receiving her IPPB treatment and begins coughing before it is through. She coughs up thick yellow sputum. She complains that this treatment always makes her cough, and does she have to finish it? You look at the sputum and reply:
- 
- List two actions you will take related to the sputum.  
          (a)  
          (b)
- 16      19. State the classification and action, method of administration, and one major side effect of elixophylline and two nursing implications.
- 17      20. Write a nursing care plan for a patient with one of the disorders listed in the Objective (or one assigned by your instructor). Include the pathophysiology of the disease and teaching and discharge plans. Bring these to a GES. Be prepared to role play your teaching or discharge plan. You may use the discharge plan in the Student Introductory section.
- 18      21. Remove the Kardex for Darlene Thomas and insert here. At 10 P.M. Darlene took her bedtime sedative and went to sleep. At 1 A.M. she awoke with dyspnea. She used her bedside nebulizer (medihaler) and sat on the edge of the bed for 20 min trying to catch her breath with very little relief obtained. After that time she turned her light on to call the nurse. If you were the nurse answering the light, which of the following actions would be the best one to take and why?
- (a) Observe the color, diaphoresis, use of accessory muscles, and flared nostrils.
- (b) Find out medications given during the last 4 hrs and the past 24 hrs.
- (c) Offer Tedral if situation is unchanged after 3–5 minutes.
- (d) Give Sus-phrine s.c. ordered.
- 19      22. A nurse walked into the room to find out how the medication was helping a patient having dyspnea from an asthmatic attack. Upon seeing her, he said in a sarcastic tone of voice, "If it's not too much trouble, would you hand me some tissues?" After doing this, she asked him if he felt the medication was helping him. He replied, "Not much. Nobody here knows how to help me. Then they send in some young punk like you who has probably never even seen anyone with asthma before. A

lot of good you'd be if I really needed help!" Describe two approaches that the nurse might use at this point, to be helpful to this patient.

- (a)
- (b)

- 20                    23. Attend a GES to role play teaching the patient with COPD ways to save energy and to improve muscle strength and efficiency.

- 21                    24. Jerry, age 3, was admitted at midnight with acute laryngotracheobronchitis. His orders are:

force fluids  
take TPR q3h  
check color, pulse, and respirations q15 min  
remain in croupette with high humidity  
full liquid diet

You are assigned to his care in the morning. He is obviously tired, with a moderate amount of respiratory distress. Describe three nursing interventions you will take to meet some of his daily needs without tiring him further.

- (a)
- (b)
- (c)

- 21                    25. Remove the Kardex for Mr. Paoli and insert here. Mr. Paoli says his food has no taste and that he is not hungry. He drinks hot coffee in the morning and takes a little soup at noon. Describe two actions you would take to try and increase his food and fluid intake.

- (a)
- (b)

- 22                    26. Prepare a list of the actions you would take to provide a patient receiving O<sub>2</sub> with minimum discomfort and maximum safety—or use your school's skill list. Ask another student to evaluate you, using the list as a checklist.

- 23                    27. Prepare a list of the actions you plan to take to provide a child in a croupette minimum discomfort and maximum safety—or use your school's skill list. Ask another student to evaluate you, using the list as a checklist.

- 24                    28. List four symptoms that indicate an obstructed airway.

- (a)
- (b)
- (c)
- (d)

29. You receive the following report on Jerry. (See question 24.)

"He slept on and off during the night. His rectal temperature is 101.8, pulse 110, respirations 32. He wouldn't drink much fluid for me last night. I just changed the ice in the back of the croupette. His mother spent the night in the room. She may go home this morning."

What additional information do you need on this child to be able to intelligently observe for a change in his condition?

How will you obtain this information?

26

30. Write the steps you plan to take in order to suction a tracheostomy or use your school's skill list. Use a real patient or "Mrs. Chase" and ask another student to use your checklist as he or she observes you. Be prepared to state your rationale.

27

31. Write the steps you plan to take to clean the inner cannula, change the dressing, and turn the patient and give oral hygiene—or use your school's skill list. Use a real patient or "Mrs. Chase" and ask another student to use your checklist as he or she observes you. Be prepared to state your rationale.





## LEVEL SEVEN

# WHY SHOULD I STUDY?

In Level Six you were introduced to some basic concepts, attitudes, and knowledge that will be applied to a variety of nursing situations in Levels Seven and Eight. It will be your responsibility to return to the appropriate Objectives in Level Six whenever you need to review.

The LEGS in this Level are organized into the same three components of care: **A. Crisis, B. Regulatory, and C. Body Systems.** Continue to route yourself through the flow chart in your own way so that you know which LEG is next in your plan.

In Level Seven you will be expected to perform at an increased level of clinical proficiency. Look at yourself:

- How you organize your information before giving patient care
- The questions you ask
- The amount of skill you display in carrying out both old and new procedures
- The attitude with which you seek new solutions and additional information

All of these will indicate whether or not you are learning and applying your knowledge to actual patient care, which is your ultimate goal.

The following statements describe your specific **Clinical Performance Expectations** for Level Seven. By the end of this level you should be able to:

1. Carry out with ease and confidence nursing skills learned in Level Six (for example, collecting sputum specimens).
2. Find information on preparation for diagnostic tests, and so on, in the health agency with less direction than in Level Six.
3. Display increased self-confidence when working with patients, staff, and instructors.
4. Apply the principles of asepsis to more complex problems with decreasing amounts of guidance from your instructor.
5. Make more complete assessments of patients in less time than in Level Six.
6. Seek information about patients in addition to what is given to you in report.
7. Care for multiple patients with problems according to priority of care.

Look for relationships, listen and think when other students are describing their experiences in group conferences. Ask for clarification if you do not understand their

descriptions. Try out ideas on the group for discussion; use each other for stimulation, evaluation, moral support, empathy, sympathy, encouragement. Nursing is working with people. If you can be successful in communicating with your peers and your instructors, you will be successful with patients and staff members.

# LEG VII-A

## Experiencing Surgery

### WHAT WILL I LEARN?

As you move through this LEG you will be studying the preoperative and postoperative care of patients of all ages. Surgery is a **Crisis** event.

Objectives 2, 3, and 7 will also build on your communication skills as well as your knowledge of the crisis and the grief process. With children you will learn the techniques of play therapy. With adults you may have your first opportunity to do some planned teaching, either individually or in small groups, as you explain postoperative exercises and care.

Objectives 5 and 6 will add to your knowledge of nutrition. Patients undergoing surgery have their nutritional status severely taxed, and you can help.

When does preoperative preparation begin? On admission? The evening before surgery? At home when packing the suitcase? Or in the doctor's office when the decision to have surgery is made? Who helps in the preparation? The family? The doctor? The nurse? When is postoperative care completed? When the patient starts eating? When the last dressing comes off? When the patient goes home? When he or she goes back to work?

Your hospital contact with patients represents only a part of their entire surgical experience. You will wish to find out what preconceptions, what worries, what expectations patients bring with them, and what responsibilities and living conditions they are returning to after discharge. A surgical experience can be life threatening, or lifesaving. For all, it is an energy-consuming experience. The body takes many weeks to return to normal function even though the exterior may appear healed and intact. Patients need help in reaching this realization in order to make practical plans after discharge and not make unreasonable demands or expectations of themselves.

As you move through this LEG, try to identify which aspects fall into the categories of **Regulatory** and **Body Systems**, based on knowledge learned in Level Six.

The **Content of the Objectives** for LEG VII-A is:

Emotional Preparation for Surgery (1-3)

Preoperative Teaching and Diet Therapy (4-8)

Preoperative Lab Reports and Preparation (9-12)

Pharmacology (13-15)

Immediate Postoperative Period (16-19)

Postoperative Care and the Nursing Process (20-25)

Planning Care for Two to Four Persons (26-27)

## WHAT'S AHEAD IN LATER LEGS

- LEG VIII-C—*Patients with GI Problems, many requiring surgery.*
- LEG IX-B—*Care after orthopedic surgery.*
- LEG IX-C—*Care after urinary surgery.*
- LEG X-A—*Convalescence and rehabilitation following radical surgery for cancer.*
- LEG XII-B—*Neurosurgical nursing care.*
- LEG XII-C—*Intensive surgical nursing care.*
- LEG XIII-B—*Intensive pediatric nursing care.*
- LEG XIII-C—*Intensive medical nursing care including endocrine imbalances.*



## OVERVIEW OF LEARNING EXPERIENCES IN LEG VII-A

<i>Objectives</i>	<i>Campus Lab</i>	<i>Group Discussions</i>	<i>Clinical Focuses</i>
1-3. Emotional preoperative preparation			<b>B2.</b> Talk with postoperative patients about preoperative feelings Talk with patients preoperatively Write a process recording Observe a nurse using play therapy with a child
4. Preoperative care 5. 6. Diet therapy 7. Preoperative teaching (H) 8. Preparation for a surgical patient	<b>B2.</b> Assisting patient return from OR	<b>B3.</b> Assessing and teaching preoperative patients	<b>B4.</b> Try out some teaching approaches Observe anesthesiologist talking with a child before surgery Talk with adults before surgery Assess a patient. Make a teaching plan Observe in x-ray Prepare a postoperative bed and room Accompany a dietician on rounds Take a diet history
9. Preparing a patient for surgery 10. Preoperative lab tests 11. Skin preparation 12. Preparing a patient for surgery using a checklist	<b>A4.</b> Skin prep	<b>A5.</b> Lab reports and implications <b>B2.</b> Preoperative medications	<b>B3.</b> Observe preoperative medications being prepared Observe in the OR Accompany persons doing skin preps in the evening Care for patients preoperatively
13,14. Preoperative medications 15. Pediatric calculations (H)	<b>B3.</b> Preoperative meds		<b>B5.</b> Give preoperative meds
16, 17. Early postoperative assessment and interventions 18. Suctioning mouth and nares 19. Recovery room care		<b>B3.</b> Care of the patient recovering from anesthesia	<b>B4.</b> Care for patients in the recovery room
20-25. Postoperative nursing care, medications, and charting 26. Organizing preoperative care 27. Involving a relative in care of a surgical patient	<b>B1.</b> Preventing complications <b>B2.</b> Assisting with a dressing change	<b>B3.</b> Planning postoperative care	<b>B4.</b> Care for a postoperative patient Give nursing care to elderly surgical patients Write a nursing care plan  <b>B1.</b> Prepare two or three patients for surgery Care for patients who have visiting relatives

# NEW TERMS AND ABBREVIATIONS

albumin

biopsy

bleeding time

BSP

clotting time

endotracheal tube

gastrostomy

hematocrit (Hct)

hemoglobin (Hgb)

hemovac

herniorrhaphy

laparotomy

OR

peptic ulcer

photophobia




pulmonary embolism

transurethral resection (TUR)

WBC

## OBJECTIVES

### *Emotional Preparation for Surgery*

- 
1. *State two benefits of helping the preoperative patient cope emotionally with his or her impending surgical experience.*
  2. *Given a sample of conversation between a nurse and a patient, identify the clues that the patient is giving the nurse about his or her preoperative fears, and state whether the nurse's responses are encouraging or discouraging the patient to explore and express these fears.*
  3. *Demonstrate by role playing how a nurse can assist a patient to become emotionally prepared for a change in body image related to surgery.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

##### 1. Think about "fear of the unknown." Apply it to:

*A teenage boy* going into a hospital building to stay without his family, surrounded by strangers, new smells, sights, sounds, and noises.

*A woman* knowing she will be "put to sleep" and strangers will cut and probe. She wonders if they will find an unknown cancer growing.

*Yourself* going into a new patient's room to talk with him about his surgery tomorrow morning.

*A 3-year-old girl* having her crib pushed into the operating room and watching a mask being placed over her face.

*A man* wondering how much pain he will have and if it will be more than he can tolerate without crying out.

*A young woman* wondering what her life will be like after her hysterectomy.

*Yourself* admitting a 6-year-old boy and his parents to a pediatric unit for your first time and the child's first hospital stay.

- What similarities are present in all these situations? Could it be the feeling of not knowing what will happen, the unknown?
- What can be done in each situation to reduce the stress to manageable amounts? Why is it so important?
- Why do the elderly respond poorly to stress?
- How can each person be better informed so he or she *knows* more and *fears* less? What type of *knowing* is necessary in each case? Is *telling* a person what will happen enough to alleviate fear and anxiety? Or maybe *showing*? How about trying a "dry run?"

- Which situations can be considered **crises**?
- How does surgery cause a change in body image?

## 2. View audiovisuals.

"Pre-Op!" (29 min, GSA), 1982: Children and parents, emotional and physical needs.

3. **Read** medical-surgical, pediatric, growth and development, and nurse-patient relationship references. Look in the index under *preoperative preparation, admission procedure, body image, play therapy, herniorrhaphy*.

Review:

LEG III-A—on admission of patient to the hospital.

LEG III-C—on anxiety.

LEG VIA—on crisis intervention.

Preview LEG XIII-B on play therapy.

## Books

LeMaitre, George D., and Finnegan, Janet A., *The Patient in Surgery: A Guide for Nurses*, 4th ed., Philadelphia, Saunders, 1980.

Smith and Duell, 1982, "Managing the Preoperative Patient," p. 659; "Identifying Stress in Preoperative Clients," p. 663.

4. **Begin answering** the questions in the following workbook. Complete all the questions by the time you attend the group discussion for Objectives 16–19.

Hymovich, 1982, Guide 12, "Tony Was Unprepared for his Tonsillectomy."

## B. PUTTING IT INTO ACTION!

1. **Write** nursing goals for the patients in each of the following situations to prepare them for surgery. Write opening statements you would make with each patient.

*Your niece, age 5, is going into the hospital for a tonsillectomy next week. She lives nearby, and you are able to visit her easily. Her parents look to you for advice in how to prepare her for the hospital experience. When you go to their home, you take your nursing cap and scissors. You ask your niece if she would like to play "hospital" with her favorite doll. She sees your cap and asks if she can be the nurse. . . . (You take it from here.)*



*A woman, age 46, is admitted for a breast biopsy and a possible radical mastectomy. You are assigned to her evening care the night before surgery. Her skin has been shaved, and you are giving her a backrub. She is talking about the new fashions, her family, and so on. Not a word has been mentioned about the forthcoming surgery. You wonder what you should say. The following possibilities pass through your mind:*

*"You haven't mentioned one word to me about your surgery tomorrow."*

*"I wonder if you have any questions about your surgery tomorrow that I might help you with."*

*"This is the first time you have had surgery?"*

*"Not knowing exactly what the outcome will be tomorrow must be very difficult to face."*

*A man, age 23, is having a hernia repaired (herniorrhaphy) tomorrow. When you bring in his evening medication, you overhear him telling his visitors how he hopes he will be "out of it" for several days so he won't "feel" anything. You wonder if this patient is afraid of appearing unmanly if he complains of pain and needs to express this concern. You wonder if he knows about the orders the physician leaves for pain medication. You make a note to spend a few minutes talking with him later.*

*An elderly man and his wife are visiting together the evening before surgery. When you come into the room, they ask you exactly what the events will be in the morning and when he is expected to come back to the room. The patient says, "I don't want my wife waiting here at the hospital all day. If anything should happen to me during the operation, I want her at home. We both know that the risks are greater when you get to be my age."*

*While on the pediatric unit, you are asked to admit the 3-year-old who is coming in for elective surgery. You are asked to get a urine specimen, take a rectal temperature, apical pulse, weight, height, make general observations, and get him settled in the room. Your mind quickly starts to think of those things you have learned about 3-year-olds: how the separation will affect the child; how you can help the parents understand the child's change in behavior; how you can find out about the child's habits, vocabulary; what explanations will need to be given to the parents about meal time, visiting hours, obtaining information about their child from the nursing staff.*

After you have identified quite clearly what your nursing goals will be for each of these patients, how will you attempt to meet those goals? List specific nursing interventions you would take to avoid adding *additional stress* to a patient prior to surgery. Be specific.

- What will you do and say if parents ask to stay with their children? (You must know your hospital's policy to answer this honestly.) How do you feel about this and why? What facts do you know to support a decision for or against it? Would age affect it?
  - Who is experiencing a crisis event when a child is hospitalized? Are any of these patients expressing preoperative fears? What are they?
2. **Plan** for a clinical experience. Select one or more of the following activities.
- ▲ Talk with postoperative patients about preoperative feelings.

- Encourage them to recall and tell you what concerns, worries, fears, and thoughts they had before going to the operating room (OR). Include family members in the conversation if present.
- Find out what sources of help were made available to them preoperatively for getting information and helping them clarify their thoughts and feelings.
- Record the information immediately upon leaving each patient's room for later sharing with other students in conference.

*[Note: This activity is not intended to be aimed as a criticism of the staff but rather is an aid to help you find out what actions, behavior, or words reach patients and how to let them know that you care and want to listen and help.]*

- ▲ Read about several patients' postoperative courses and make some assumptions about the effect of their preoperative preparation on their postoperative behavior.
- ▲ Talk with patients (adults or children) preoperatively. Listen to them. Try to pick up verbal or nonverbal clues that reveal their attitude, fears, concerns. Be aware of how you feel and are responding. Are you:

\_\_\_\_\_ Uncomfortable and relieved when he says very little about the surgery and changes the subject?

\_\_\_\_\_ Afraid she will ask you a question that you won't be able to answer? (Never be afraid to admit you do not know but you will find out.)

\_\_\_\_\_ Elated when he gives you a clue and you have a chance to help him put down his barrier for a little while and talk honestly with you?

\_\_\_\_\_ Able to apply and use some of your communications skills learned last term?










\_\_\_\_\_ Convinced that talking out a patient's fears now will really help her postoperative course?

Record your conversation (verbatim) immediately upon leaving the room for later sharing in conference.

- ▲ Observe a nurse preparing a child for surgery by using play therapy, puppets, picture books, tours, and so on.

# OBJECTIVES

## *Preoperative Teaching and Diet Therapy*

-   4. *Given a patient situation, state how each of the following will help or hinder a patient's ability to withstand the stress of anesthesia and surgical trauma: age, weight, normal activity, respiratory function, cardiac function, kidney, and hepatic function.*
-   5. *List three nutritional conditions that increase the risk of surgery.*
-  6. *List three nursing actions that support preoperative and postoperative diet therapy.*
-    7. *Given a description of a patient, state what specific preoperative explanations and teaching would help the patient's postoperative progress and state in what way it would help.*
-  8. *Demonstrate making a surgical bed and preparing the room to receive a patient from surgery.*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the times you have heard someone say, "It's just minor surgery," or "She's going to have an exploratory laparotomy." What is the difference between minor and major surgery? Is one safe and one dangerous? How should a patient view each surgical procedure that involves receiving anesthesia? What are the risks?

Think about foods and diet and how they affect a patient who needs surgery. Remember how the reward of ice cream is promised to a young T&A patient. You will learn the implications of diet therapy for the surgical patient.

2. **View** audiovisuals.

"Nursing Measures to Restore Effective Postoperative Ventilation" (30 min, AJN), 1978.

"The Preoperative Patient: Nursing Assessment" (TR).

"Teaching and Anticipatory Guidance".

"Consent, Preparation and Transfer".

3. **Read** about *preoperative preparation and teaching, postoperative complications and care, and nutritional status and diet therapy* for the surgical patient.

Read a "Consent to Treatment or Operative Procedure" (operative permit) from your local hospital.

## Books

- Bodinski, 1982, Chapter 9, "Diet Therapy in the Preoperative and Postoperative Periods," p. 138; Chapter 20, "Diet Therapy in Relation to Religious and Cultural Customs," p. 267; Chapter 3, "Nutritional Assessment," p. 36.
- Smith and Duell, 1982, "Teaching Deep Breathing and Coughing Exercises," p. 551; "Providing Preoperative Teaching and Psychological Preparation," p. 667.

### 4. Answer the following questions:

- (a) Why is the period before, during, and after surgery sometimes called a time of limited starvation? How does the burning of fat tissue for energy relate to metabolic acidosis? What routine therapy prevents this? How?
- (b) How might the stress of surgery affect the fluids and electrolytes and hormone secretion in the body? (See Bodinski, p. 139.)
- (c) What is the importance of the following nutrients for the surgical patient: iron, vitamins C and K, protein, carbohydrates, glucose. How could these nutrients be administered to a postoperative patient who is NPO?
- (d) What is the main purpose of preoperative meals? What are five reasons that it is important to make a nutritional assessment of a surgical patient? If your assessment of a preoperative patient indicated that dehydration was present, what nursing actions should you take? Why?
- (e) List foods that provide the following nutrients:

carbohydrates  
protein  
vitamin K  
vitamin C  
B complex  
thiamine, calcium  
iron  
zinc

*You will need to learn some new terms and procedures in this LEG. Look up the answers to the following questions before you attend the group discussion on "Assessing and Teaching Patients."*

- (f) What is the difference between the following types of surgery: diagnostic, exploratory, curative, ablative, reconstructive, constructive, palliative. Find examples of each of the above types of surgery on your surgical unit.
- (g) List examples of health problems that might occur because of each of the following pathologic processes and describe what can be accomplished through surgery to alleviate the problem: obstruction, perforation, erosion, tumor.
- (h) What postoperative complication would you be especially alert for in each of the following patients?

A heavy smoker has a history of heart disease and is 40 pounds overweight, age 49  
Is 2 months old



Has a history of hepatitis and kidney disease (no albumin in the urine), age 20

Has a slightly elevated BSP (liver function test), age 9

Is 74 years old and had a mild stroke five years ago

The nursing care a patient receives before surgery has a major impact on how he or she tolerates surgery and recovers from it.

Do you know how your preoperative teaching would differ for each of these patients and why?

5. **List** five postoperative complications and describe the nursing interventions that are aimed at preventing them. Underline those measures that need to be taught to the patient preoperatively.

*Complications*

*Nursing Preventative Interventions*

How many of these are listed on the operative permit? Why?

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

1. **Write** a nutritional plan for a postoperative patient. Include the patient and family members in this plan. Refer to Bodinski, Chapter 20 on religious and cultural customs. Remember, if the diet plan does not fit in with the culture and religion of the patient, it will not be followed.

2. **Practice** helping someone on and off a stretcher from a bed. Give your "patient" different physical limitations, such as a painful abdominal incision or inability to move his or her left side. Then add the various types of tubing that might be present, such as an I.V. in one arm, a ng tube, and a urinary catheter and bag (any and all of these). You may find that you need to organize your plan of attack before starting.

When the patient returns to the room, several people are involved in his or her transfer. Don't be embarrassed by having a stool, chair, or congested bedside stand in the way. Be sure your patient's room is ready. Try it in campus lab without preparation. That will make a believer out of you!

3. **Attend** a small group discussion on "Assessing and Teaching Preoperative Patients." Think about how you get information, whether through an interview or from the chart. What kinds of information would you expect to find on the chart? To obtain by interview?

- What health problems decrease the body's ability to withstand stress?
- List examples of stress responses that can occur postoperatively.

- Why are the elderly poor surgical risks? List at least three reasons.
- Discuss the reason for the operative permit, proper legal procedure to be followed, and legal implications for the doctor, nurse, and hospital.
- List at least four principles of teaching that you should be aware of when teaching a preoperative patient. Practice teaching each other using these principles and the Preoperative Teaching List on the following page.
- How does your teaching plan change because your patient is elderly? What kind of graphics could you create to make your explanations especially clear? How can you make your instructions clear and uncomplicated with frequent repetition, without making them appear childish? This is not easy and takes practice.

**4. Plan for a clinical experience.**

- ▲ Try out some teaching approaches for children.
- ▲ Observe an anesthesiologist talking with a child and his or her parents prior to surgery. Find out what information is given to them and what facts determine the choice of an anesthetic.
- ▲ Talk with adults prior to surgery. Find out what they know about the Recovery Room and about their postoperative care. Then plan what information you could give them to help them better cooperate during their postoperative period.
- ▲ Accompany a dietician making rounds on a surgical floor. Observe and listen for different questions for pre- and postoperative patients.
- ▲ Take a diet history; assess a patient's nutritional status before surgery.
- ▲ Complete a preoperative patient assessment based on admission information. Interview the patient and review the chart. After talking with the patient, write a teaching plan for that patient.
- ▲ Observe patients in the x-ray department prior to surgery. Accompany the technician as the patients are x-rayed; look at the films with the radiologist. Be observant of the patient's signs of stress, discomfort, fear, fatigue, hunger, and dehydration.
- ▲ Prepare a room to receive a postoperative patient following surgery.

## PREOPERATIVE PATIENT TEACHING\*

1. Explanation of the surgical procedure (where the incision will be; why surgery is needed).
2. Explanation of consent for surgery.
3. Physical therapy routines (deep breathing and coughing exercises; how to splint incision; how to move in bed; importance of early ambulation; range of motion exercises and the reasons for each).
4. Explanation re: anesthetist's preoperative visit.
5. Preoperative skin preps and any other special preparations (removal of prosthesis, rings, *diet, enemas*, etc.).
6. Preoperative meds: why, what, when, and how?
7. Care of patient's valuables during surgery.
8. Method of transfer to surgery and when.
9. Explanation of anesthesia (type, side effects, ways of preventing).
10. Explanation of Recovery Room and immediate postoperative care (frequent vital signs checking, etc.).
11. Postoperative pain, where, why, and medication available.
12. Explanation of postoperative equipment (n/g tubes, I.V.'s, catheters, monitors).
13. Explanation of emotional and physical responses to surgery.
14. How family can be kept informed and when allowed to visit (how long expected to be in surgery and Recovery Room).
15. Explanation of any physical limitations postoperatively.
16. Explanation of when patient can return to daily activities, any home care involvement, assistance available (Public Health, Visiting Nurse).
17. Specific instructions re any postoperative procedures (care of colostomy).

[*Note: Numbers 16 and 17 can begin in preoperative period, but should be stressed in postoperative period.*]








\* Preoperative Patient Teaching form provided by Brandon General Hospital School of Nursing, Brandon, Manitoba, Canada





## OBJECTIVES

### *Preoperative Laboratory Reports and Preparation*

-    9. From a list of actions, select those that should occur to prepare the patient for surgery the evening prior to surgery.
-  10. Given a patient situation and a list of laboratory reports for white blood count, hemoglobin, hematocrit, bleeding and clotting time, and urinalysis and their normals, state which would need to be called to the physician's attention preoperatively and might prevent surgery.
-  11. List the equipment needed and the actions you would take to complete a skin prep on a patient prior to surgery.
-   12. Demonstrate or describe in writing preparing a patient for surgery on time, using a preoperative checklist.

[Note: Objective 11 may be required in LEG VIII-A instead of here because of your hospital's individual prep routine.]

### COMMENTS ON VIEWING OPERATIONS

*It is difficult to view films that show incising the skin and exploring the internal organs without identifying with the patient being operated on. Blood is shown freely, and we assume the patient must be feeling pain, although our reasoning tells us that the patient has been anesthetized and is asleep. Think this through prior to viewing the films at this Level and you may find yourself better prepared to view operations both filmed and alive.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the last 12–14 hours before surgery. It is 8 P.M. and the visitors have left. Now the patients get their skin preps, enemas, and showers. Try to imagine what your patients' feelings and thoughts are. How can you complete your schedule of work and still meet their needs? What will help them sleep a little better?

2. **View** audiovisuals.

"The Preoperative Patient: Consent, Preparation and Transfer" (TR).

"Nurse, Ethics, and the Law" (TR) 1984.

"Consent to Treatment"

3. **Read** about *preoperative preparation* and *laboratory tests* in medical-surgical references

and hospital procedure manuals. Also about *tonsillectomy*, *TUR (transurethral resection)*, *D & C, hysterectomy*.

Review LEG V-A, Objectives 1 and 2 on sterile technique and Objective 19 on sterile gown and glove practice, before your operating room experience.

#### Books

Smith, and Duell, 1982, "Preparing Client for Surgery," p. 671.

**4. Check out** self-practice materials "Skin Prep" after you have viewed a demonstration. Examine its contents. Is the soap supplied? The razor? Go through the steps as if you were going to complete a skin prep. How can you see if you have removed all the hair? What is the harm in leaving a few hairs, nicking the skin, or scraping the skin? Have you ever had tape applied to scraped skin and then pulled off again? Ouch!

Because of the skill involved and the importance of the prep being done properly, most hospitals designate one person to do all the preoperative preps. However, if a patient needs to go to emergency surgery, you may be the one to accomplish this task. So it will be to your benefit to be familiar with the equipment and have some practice in shaving another person, be it patient or friend.

**5. Attend** a lecture on "Laboratory Reports and Their Implications for Surgical Patients."

#### COMMENTS ON GIVING INSTRUCTIONS

*What is very clear to you may not be clear at all to the patient. As an example an R.N. in a large teaching hospital had the following experience. One of her patients was scheduled for abdominal surgery the next morning. After visiting hours, she went to the patient and explained that the doctor wanted him to shower before going to bed. She handed the patient three ounces of liquid soap, a washcloth, and a towel and told him, "Take this and have a good shower." The patient returned from the shower a short time later and told the nurse, "That stuff tasted awful! But the shower felt good." (He thought he was supposed to drink the soap, and did.)*

*Fear, anxiety, and apprehension affect your patients' comprehension of instructions and seemingly simple things like the soap. Be very careful to make sure that your patients understand.*

#### B. PUTTING IT INTO ACTION! \_\_\_\_\_

**1. Obtain** three preoperative checklists from your hospital or instructor, three sheets of nurse's notes, and medication records and do the following:

- Record on your checklist, nurse's notes and medication records. Record according to your local policy. Bring them to your clinical lab.

- Mrs. Greene*, age 30, has been having vaginal bleeding between her regular menstrual periods. Her physician decided to examine the uterine lining to determine the cause. A D&C and biopsy of tissue was done. Based on his findings, he decided to perform a hysterectomy. The Greens have one child and had hoped for one or two more. They are disappointed but willing to accept the doctor's decision.
- Mr. Serch*, age 66, has been having difficulty with urination for the past few years. His physician told him that his prostate gland was enlarging and one day he will need to have surgery to remove the tissue encroaching on his urethra. His difficulties have increased to the present when he is having to get up three and four times during the night to void. He is admitted to the hospital one day before surgery for a TUR (transurethral resection).
- Alice Tunsel*, age 7, has had repeated attacks of tonsillitis and ear infections. The doctor has advised having her tonsils and adenoids removed when she is free from infection. Her parents have never had a child in the hospital and are uncertain of exactly how to prepare her for this experience. The doctor gives them a booklet to read.

Date	Doctors Medication and Special orders	Tunset, Alice
2/16	Preoperative orders: NPO at midnight Nembutal 125 mg } Atropine gr 1/200 } IM on call	J. Hamilton M.D.







Date	Doctors Medication and Special orders	Greene, Janet
4/16	Preoperative orders: Skin prep for abdominal hysterectomy NPO at midnight SS Enema in P.M. Seconal 100 mg at hs Vistaril 75 mg qm Atropine gr 1/50 Morphine gr 1/6 } I.M. on call	
	R. Baker M.D.	

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	TODAY	<input type="checkbox"/> BILE		<input type="checkbox"/> SULKOWITCH		URINE	
	ROUTINE	<input type="checkbox"/> DIACETIC ACID		<input type="checkbox"/> BENCE JONES		<input type="checkbox"/> METABOLIC SCREEN	
	DATE	<input type="checkbox"/> QUAL FAT		<input type="checkbox"/> MUSCLE FIBERS		FECL3	
		NURS STATION		ROOM		PATIENT	
4/16		Greene, Janet					
COLLECT		DONE BY		COM- PLETE		VOIDED	
DATE, TIME IN		DATE, TIME OUT		COLOR		GLU COSE	
				APPEAR ANCE		RED SUBS	
				PH		KETONE BODIES	
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	TODAY	<input type="checkbox"/> RBC		SEG 50 - 70%		LYMPH 20 - 45%	
	ROUTINE	<input checked="" type="checkbox"/> HEMATOCIT		45 %		MONO 2 - 8%	
	DATE	<input checked="" type="checkbox"/> WBC		6000		EOS 1 - 5%	
		NURS STATION		ROOM		PATIENT	
4/16		Greene, Janet					
COLLECT		DONE BY		CBC		RBC INDICES	
DATE, TIME IN		DATE, TIME OUT		SICKLE CELL		MCV (82-92)	
				RETIC. 0.5-1.5%		MCH (27-32)	
				PLATELETS		MCHC (32-36)	
				SED RATE (UNCORR)		CIRC EOSIN	
				SED RATE (CORR)		(4 HRS. AFTER)	
				V. 0.20MM		THORN TEST	
				ITEM NO		DOLLARS	
						CENTS	

## PROBLEMS FOR SOLVING

- (a) How can you help each of these patients to be well hydrated prior to surgery?
- (b) How will you help Mr. Serch and Mrs. Greene onto the stretcher preoperatively and off postoperatively? How will their ages make a difference in their care? What if Mr. Serch were 84 instead of 66?
- (c) Why is their lab work different?  
Which of the lab reports would you report to the physician before surgery?
- (d) What safety precautions do you take after an adult, a child, has been medicated preoperatively?
- (e) Why should you tell parents about the flushing effect of atropine? When would you explain this to them? Suppose the order for Alice Tunsel had read: "Nembutal 100 mg in 5 cc of water per rectum." How would you administer this?
- (f) How are allergies called to the surgical team's attention?
- (g) What are the legal implications of preparing a patient for surgery?

2. **Attend** a group discussion on "Preoperative Medications" after you have completed B-1. Bring a self-practice box of equipment.

- Assume you are the morning nurse and are responsible for preparing your patient (select one of the patients in B-1) for surgery. It is 7:15 A.M., and the night nurse has given the preoperative sedative. Surgery is scheduled for the morning, but you are waiting for a phone call to give the "on call" medications. You have between *three and five minutes* after the phone call before the patient must be taken from the floor to the OR.
- Organize your nursing actions so that your patient is completely ready for surgery on time without feeling rushed or anxious.
- When do you check the lab reports? Allergies?
- What additional care will your patient require this morning other than what is included on your checklist?
- What rationale will you use to organize your actions?

Example:

When will you check for dentures or have the patient void?

1. before giving a sedative
  2. after giving a sedative
  3. before surgery calls
  4. after surgery calls
- What charting will you be doing and when will you do it? Once you have decided on a plan of action, role play it with the other student acting as the patient. Include preparation of the medication with a practice syringe, needle, and vial. Time yourself. Did it take longer than you expected? Evaluate your plan and make changes as necessary.

### 3. Plan for a clinical experience.

- ▲ Observe the preparation of preoperative medications in the morning. How long does it take the staff nurse to prepare, give, and chart a medication?
  - Look closely at the various medications so that you will know exactly how to prepare them when you have an opportunity to do so.
  - Read some of the preoperative orders for patients waiting to be “called” and think through exactly how you would draw it up and where you would chart it. Practice drawing up and giving medications in preparation for the next Objectives on preoperative medications.
- ▲ Accompany the person doing the skin preps in the evening. Observe the technique and the finished skin area. What would your strengths and weaknesses be if you were doing this procedure? Is your hospital using a dipilatory? How does the procedure change? What safety measures would you need to take? Would you check for possible allergies before the prep was done? Why?
- ▲ Care for patients preoperatively in the morning or evening and assume as much responsibility for their surgical preparation as you are able. Accompany them to the OR and observe the surgery if possible.
  - Take notes of their behavior and appearance after receiving their preoperative medications. If arrangements have been made ahead of time, stay to observe the patient receive his or her anesthesia and the operative procedure. (If you know the purpose of the operative procedure ahead of time and have done some reading about it, you will learn a great deal more while in the OR and be able to ask intelligent questions.)
- ▲ Look up the preoperative medication orders for different children. Write them down. Look at the medications on the unit and write down how each medication is supplied (for example, 10 mg tablets or gr ss per cc or 50 mg per suppository).
- ▲ Attend postconference to share your experiences. Discuss these questions:
  - Which patients have bleeding and clotting times done before surgery? Why?
  - How can you assist the preoperative medications to achieve their desired effect? What side effects did you observe?

Which of the following observations would need to be reported to the physician and might cause the surgery to be cancelled?

1. Elevated temperature
2. Elevated white count
3. Low Hgb and *no blood available* of that type
4. EKG or definite change in pulse rate
5. Runny nose and cough

When might an abnormal report be expected and **not** need to be reported?



In many hospitals, children and often adults are admitted two to three hours prior to surgery; therefore, the preoperative nursing evaluation is important. What if

1. The admitting temperature is 101 degrees?
2. The patient is coughing and/or has a rash?
3. The mother admits to giving a child patient "just a little breakfast" before bringing him or her to the hospital?
4. A toddler is found clutching another patient's bottle, and the nurse is unable to determine whether or not the child drank anything?
5. You are unable to obtain a urine specimen prior to surgery?



# OBJECTIVES

## Pharmacology




13. Given a list of desired and undesired side effects of drugs in the following classifications, select those for which you would be observant when giving each drug to a patient: analgesic, anticholinergic, tranquilizer, sedative, and antiemetic. A drug list will be provided by your instructor.



14. Demonstrate safely administering a preoperative medication exactly on time.



15. Given an order for a preoperative medication in a pediatric dosage, describe how you will prepare the medication, how much you will administer in cc's or minims, and how you will administer it to the child. 

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** medications and their effect. What can you tell your patient to make the unpleasant effects less bothersome and frightening, such as dry mouth or dizziness? Fear of an injection and actually receiving the injection may be worse for a child than the unknown waiting for him or her in the operating room. Prepare your patients of all ages for their medications. They will be pleased to know the reaction is expected and has purpose.

2. **List** in the chart on the next page the desired preoperative effect and the undesired actions that might occur for all of the preoperative drugs you can find. Group the drugs according to the classifications in Objective 13. Find the drugs on patients' charts and in reference books. Look up and write down the adult's and the child's dosage. The first listing is an example. You may want to use drug cards instead.

Which of the following medication dosages would be appropriate for children and which for adults? Select your answer from the column at the right and write it in the blank.

#### *Children under 90 lbs*

Demerol \_\_\_\_\_

Atropine \_\_\_\_\_

Vistaril \_\_\_\_\_

#### *Choice of Answers*

Demerol, 25 mg

Demerol, 75 mg

Demerol, 150 mg

Vistaril, 2 mg

Vistaril, 25 mg

Vistaril, 75 mg

#### *Adult*

Demerol \_\_\_\_\_

Atropine \_\_\_\_\_

Vistaril, 150 mg

Atropine, gr 1/500 (0.12 mg)

<i>Classification</i>	<i>Drug</i>	<i>Desired Action/Use</i>	<i>Undesired Action/Use</i>	<i>Dosage</i> <i>Adult</i> <i>Child</i>	<i>Nursing Implications</i>	<i>Drug Interactions</i>
anticholinergic	atropine	reduces respiratory secretions and salivation	causes excitement; talkativeness; dilates the pupils causing blurred vision; reduces sweating causing flushing	0.4 mg 0.12 mg	explain flush caused by vasodilation note signs of tachycardia	



Vistaril \_\_\_\_\_

Atropine, gr 1/200 (0.3 mg)

Atropine, gr 1/150 (0.4 mg)

Atropine, gr 1/20 (3 mg)

Atropine, gr 1/5 (12 mg)

3. **Read** about *pediatric dosage* and *preoperative medications* in medical-surgical, pediatric, geriatric nursing, and pharmacology references.

Review your anatomy and physiology of the autonomic nervous system.

**B. PUTTING IT INTO ACTION!** \_\_\_\_\_

1. **Work** the following dosage problems and state how much medication you will give each patient in cc's or minims.

Tommy, age 4, is to receive 25 mg of Vistaril I.M. The Vistaril is supplied 50 mg/cc.

Cindy, age 7, is to receive atropine gr 1/500 I.M. The atropine is supplied gr 1/300/cc, 1/200 per cc, and 1/150 per cc.

Susan, age 6, is to receive Demerol, 25 mg I.M. The Demerol is supplied 100 mg/2 cc, 50 mg/1 cc, and 75 mg/2 cc.

Role play how you would prepare the following preoperative medications:

Demerol, 25 mg, and scopolamine, 0.25 mg I.M. to a 4-year-old.

Morphine sulfate, 4 mg, and atropine, 0.15 mg I.M., to a 2-year-old.

Scopolamine, 0.15 mg I.M. to a 1-year-old.

- Which of the above dosages and medications would you give without question and which would you not give without verification by the physician and why?

*[Note: You are mixing two medications in one syringe. The dosage is very small and your need for accuracy is very important! Practice!]*

Review LEG III-B for equivalents and LEG IV-B on injections.

What differences might you find in dosage for an elderly adult? Why?

2. **Answer** these questions:

- (a) What group of drugs mimics the sympathetic system? List one drug.
- (b) What group mimics the parasympathetic system? List one drug.

- (c) What do cholinergic blocking drugs do? Name one drug.
- (d) What do adrenergic blocking drugs do? Name one drug.

### PROBLEMS FOR SOLVING

You were preparing atropine for a patient and accidentally got some on your finger. You failed to wash your hands and later rubbed your eyes.

- What effect will it have on your vision? What effect could be seen by an observer?

You are admitting a patient and inquiring about allergies. The patient states he is allergic to morphine. You ask him what symptoms occur when he takes it.

- What might he tell you? How do allergic manifestations differ from side effects?

A physician inquires about a patient's history of heart disease and glaucoma before writing her preoperative orders.

- Why?

After receiving an injection of medication, the patient becomes quite apprehensive and tells you he feels "peculiar." He throws off the bed covers and rubs the palms of his hands together and sits upright. He seems to be having difficulty in breathing.

- What could be happening to this patient and what is the best action for you to take?

A physician orders a child to receive codeine gr  $\frac{1}{6}$  (10 mg) and you know you have codeine gr  $\frac{1}{4}$  and gr ss in the narcotic cupboard. You decide to tell him this, and he changes his order to gr  $\frac{1}{4}$  and tells you he'd rather have you spend your time with the patient than figuring out drug problems in the medication room and that the difference between gr  $\frac{1}{4}$  and gr  $\frac{1}{6}$  is negligible for this patient.

- How did you approach the problem? Think about the problem above and what you, the nurse, said and did that influenced the successful outcome.
- Role play it with another student assuming different attitudes and observe the effect.

3. **Practice** preparing preoperative medications in campus lab. Be sure you can draw up two medications in one syringe without contaminating the second vial. Try drawing up a colored solution first and a clear solution second.

4. **Plan** for a clinical experience.











▲ Give preoperative medications within 5 minutes after patient is called from the operating room.

Observe patient reactions to medications.

Complete checklist and charting.

# OBJECTIVES

## *Immediate Postoperative Period*

-   16. Describe three expected behaviors of patients in the two to three hour period following surgery with general anesthesia or spinal anesthesia and list three safety precautions required in caring for them during this period of time.
-    17. List four to six observations that would make you suspect a patient was bleeding or going into early shock after surgery.
-   18. Demonstrate suctioning a person's mouth and nose using either a wall suction or a portable suction machine to maintain a patent airway and to facilitate gas exchange.
-    19. Demonstrate caring for a patient during the immediate one to two hour period following surgery with a general anesthetic, making assessments and planning nursing interventions for the following:
- patent or obstructed airway
  - level of consciousness and reflexes
  - I.V. absorption, type, and amount
  - restlessness
  - discomfort
  - amount and type of wound drainage
  - early signs of shock
  - vomiting and aspiration

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. Think about patients coming out of anesthesia immediately after surgery. These persons are absolutely unable to care for themselves; they are totally dependent on the observations and care of the Recovery Room nurses. Can you meet their every need? Can you anticipate their needs? With time you can do it. Observe and assist as much as possible. Prepare yourself well so that you know what to expect and look for in the Recovery Room.

### 2. View audiovisuals

"The Postoperative Patient: Nursing Assessment" (TR).

"Nursing Care".

"Care After Your Surgery" (TR).

"Pharyngeal Suctioning" (TR).

"Shock: The Final Pathology" (AJN).

"Nursing Measures to Restore Effective Postoperative Ventilation" (video, 30 min. AJN) 1978

3. Read in medical-surgical, pediatric, and geriatric nursing references about *care of the patient during and immediately after surgery, types of anesthesia, oxygen, suctioning, and shock.*

Review materials on I.V. absorption, observations in LEG IV-C.

The Recovery Room nurse must be prepared to know what observations to make and how to operate the equipment required. Read about different types of surgery. Your Recovery Room experience will be much more meaningful and a great deal less confusing to you if you prepare yourself with this knowledge.

#### Book

Smith and Duell 1982, "Providing Oral, Tracheal and Endotracheal Suctioning," p. 558; "Caring for the Intraoperative Client," p. 679; "Providing Postoperative Care," p. 684.

#### Journals

Dolan, M., "Controlling Pain in a Personal Way," *Nursing* 82, January, p. 68.

McGowan, E., "When the Patient's Blood Pressure Falls," *Nursing* 80, February, p. 26.

McGuire, L., "A Short Simple Tool for Assessing Your Patient's Pain," *Nursing* 81, March, p. 48.

McGuire, L., "Managing Pain: In the Young Patient—In the Elderly Patient," *Nursing* 82, August, p. 52.

Watson, Sheila and Hickey, Patricia, "Help for the Family in Waiting," *AJN*, May 1984, p. 604. (Support for the family during surgery.)

4. Fill in this chart in order to help you understand and remember the stages of shock. Shock is a very complex condition, and unless treatment is started early it becomes very difficult to reverse the chain reaction effect in the body. Always be suspicious of early symptoms. Don't wait for the progressive stage to set in.

#### SHOCK STAGES

<i>Symptoms</i>	<i>Initial/Compensatory</i>	<i>Progressive</i>	<i>Irreversible</i>
<i>Physiologic Changes</i>			



## B. PUTTING IT INTO ACTION!

- 1. Prepare** for a group discussion by organizing your observations and care of the three patients on page 187.

According to their charts, on the following pages, each of these patients has entered the Recovery Room following surgery; they each have an OR record and a doctor's order sheet. A Recovery Room nursing record has been started. Read about each patient.

- Find out what type of surgery was done, what type of anesthesia was used, how long each patient was anesthetized, what the vital signs have been, and any other information contained in the record.
- Look for the conditions listed in Objective 19. These are the records you will have available to you when you are actually caring for patients in the Recovery Room.
- List the observations the nurse should make before administering the first analgesic medication postoperatively.

Date and Hour	DOCTOR'S MEDICATION AND SPECIAL ORDERS
4/17	Post operative orders: Check vital signs q 15 min until stable, q 30 min x 4, q 2 h until morning then q.i.d. Ice chips when awake Clear liquids in a.m. I & O Check dressing - reinforce PRN Turn, cough, leg exercises q 2 h Demerol 75 mgm I.M. q 4 h PRN-pain Compazine 10 mg I.M. q 6 h PRN-nausea Foley to straight drainage
	L. Lunsald MD

- List the observations you will make of this patient postoperatively. See operative sheet on Janet Greene, pp. 204–205, to learn what surgical procedure was done.

Date and Hour	DOCTOR'S MEDICATION AND SPECIAL ORDERS	
4/17	Postop Orders	Tunsel, Alice
	K-Bicellin 600,000 U i.m. } stat	
	Andrenosem 2 mg i.m. }	
	Elixir Tylenol 20cc q4h prn	
	Nembutal Supp. grt at bedtime	
	Encourage to Swallow Saliva	
	Force Fluids especially coke, ice cream	
	Ice Collar	
	Discharge anytime after 6 a.m. after drinking at least one glass of liquid	
	Take home 3 it Elix Tylenol	
	J Beugeon MD	

- List the observations you will make of this patient postoperatively. See OR sheet on Alice Tunzel on pp. 206-207.

Date and Hour	DOCTOR'S MEDICATION AND SPECIAL ORDERS	
4/17	Post Operative Orders	Serch, Michael
	Vital signs q 15 min until stable,	
	then q 2 hrs until morning	
	3,000 cc 5% D/W IV in by midnight,	
	then discontinue.	
	Add 30 mEq KCl to one liter IV fluids	

	Leitine 25-50 mg IM q 4hr PRN pain
	Continuous Foley irrigated w saline until
	returns clear, then irrigate PRN
	Dangle tonight.
	Clear liquids as tolerated.
	X. Lesky, M.D

- List the observations you will make of this patient postoperatively. See OR record on Michael Serch on pp. 208-209.

2. List the postoperative observations and precautions you should take when each of the following types of anesthetic agents are given to patients.

#### *Inhalation Agents*

Fluothane

Diethyl ether

Ethrane

Penthrane

Nitrous oxide

Cyclopropane

#### *Intravenous agents*

Ketamine

Innovar

#### *Regional anesthesia*

Spinal

Epidural

Caudal

#### *Topical anesthesia*

# ANESTHESIA RECORD

C-606

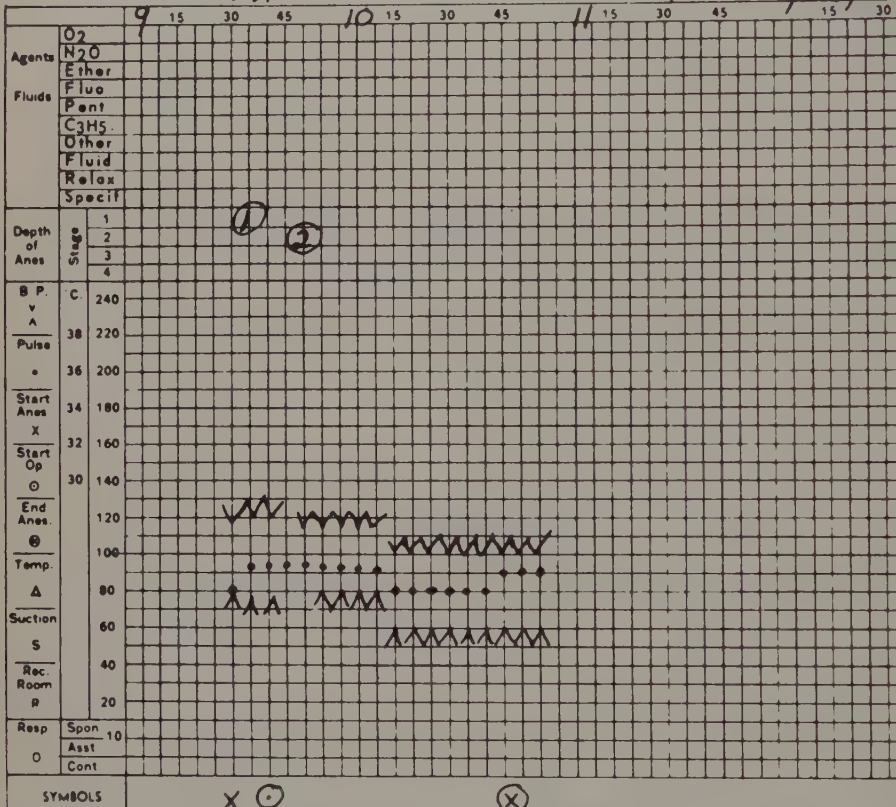
NURSES STATION	PATIENT	HOSPITAL NO.
4/17	Janet Greene	

Consent <b>Yes</b>	Physical Status <b>OK</b>	1	2	3	4	5	Blood Work <b>Hgb 16 Gm Hct 45%</b>	Urine <b>NEG.</b>
Ht <b>5'6"</b>	Wt <b>130</b>	Allergy <b>Penicillin</b>				Blood Tendency Coag. etc.		

Other Conditions Pertinent
-------------------------------

Diagnosis <b>Fibroids - uterine</b>	Drug Tendency
--	---------------

Proposed Operation <b>TAH</b>	Premed <b>Viataril/Atropine/MS</b>	Time <b>9:35</b>	Effect <b>Drowsy</b>
----------------------------------	---------------------------------------	---------------------	-------------------------



Remarks,  
(Induct.; Maint.;  
Emergence, etc.)

① opthal. ointment  
O.U.

② #19 butterfly  
dorsum L hand

Position
----------

Agents A	Techniques	Fluid Summary Dextrose - H <sub>2</sub> O	Airway	N	O
B.	<b>I<sub>3</sub>-N<sub>2</sub>O-O<sub>2</sub></b>	<b>1000 D5LR</b> Glucose - Saline	Endo	N	O
C.	<b>Pentothal 200</b>	Saline	Cuff	C	S
D.	<b>Anectine 370</b>	Plasma	Mask		
E.		Blood	Other		

not intubated  
tooth guard  
used

Anes. Time Start <b>9:35 AM</b>	Surg. Start <b>9:45</b>	Surg. End <b>10:55</b>	Anes End <b>10:55 AM</b>
---------------------------------------	-------------------------------	------------------------------	--------------------------------

Operation <b>TAH</b>
-------------------------

Surgeon <b>J. Arnold</b>	Ass. <b>P. Glaser</b>	Anesthesiologist <b>R. Baker</b>
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Greene, Janet

[illegible]

Signature - R.N.

# ANESTHESIA RECORD

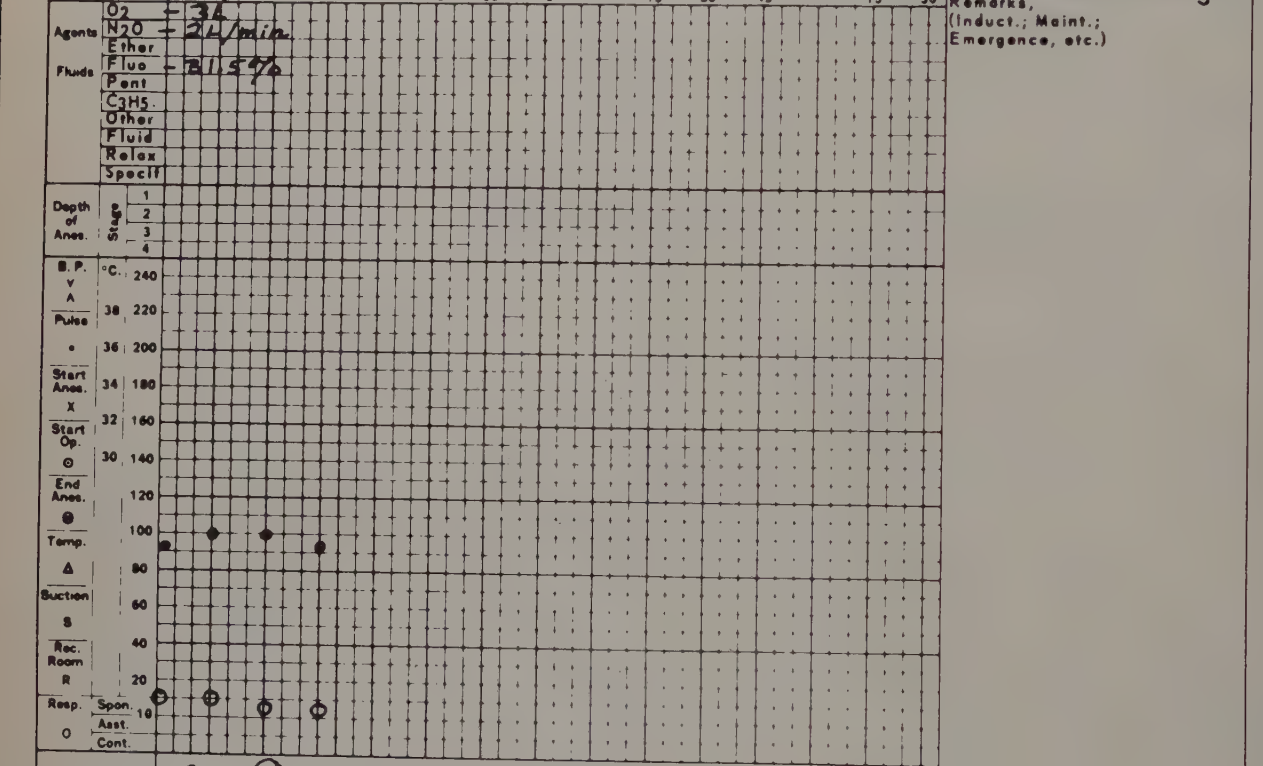
C-606

NURSES STATION	PATIENT	HOSPITAL NO.
4/17	Alice Tunsel	

Consent Yes	Physical Status OK	1	2	3	4	5	Blood Work Hgb 13 Gm	Urine NEG.
Ht. 55	Allergy NONE						Blood Tendency Coag. etc.	Bl Time 2 min

Other Conditions Pertinent	Diagnosis Tonsillitis	Drug Tendency
		Clotting 4 min

Proposed Operation 10:00 T & A	PreMed Dem, Phen/atrop	Time 7:05	Effect Sleepy
-----------------------------------	---------------------------	--------------	------------------



Position					
Agents A.	Techniques	Fluid Summary Dextrose - H2O	Airway	N	O
B.	N2O-O2-F3	Glucose - Saline	Endo	N	O
C.	Anectine	Saline	Cuff	C	S
D.	20mg	Plasma	Mask		
E.		Blood	Other		
Anes. Time Start 10:00 am	Surg. Start 10:08 am	Surg. End 10:20 am	Anes. End 10:25 am		
Operation T & A					
Surgeon Burgeon		Asst.		Anesthesiologist P. Rawlings	

Tunsel, Alice

Date	Hour
------	------

Responding awake - P120 R22

Andrenosem 2 mg

I.M. given P. Tully RN

1049 P 120 R 22 awake crying - O<sub>2</sub> discontinued

$10^{55}$	$P_{122}$	$R_{20}$
-----------	-----------	----------

Satisf.

**Specify:**

Time

**LEG VII-A / Objectives 16–19**

C-606



# POST OPERATIVE RECOVERY ROOM

Serch, Michael

Time Admitted

Date	Hour	
4/17	12 <sup>25</sup> PM	Admitted - not reacting Sp <sup>110</sup> / <sub>80</sub> P 104 R 18 #24 Foley to straight drain - put to traction by Mr. Lesby. Irrigated c saline. Returns red. D5 LR running at 125 cc/hr.
	12 <sup>35</sup>	Sp <sup>130</sup> / <sub>76</sub> P 90 R 20 Awake. Continuous foley irrigation set up.
	12 <sup>45</sup>	Removal 25 mg I.V. push Removal 25 mg I.V. P. Miles, RN
	12 <sup>50</sup>	Sp <sup>130</sup> / <sub>78</sub> P 86 R 20 Restless.
	1 <sup>15</sup>	<sup>130</sup> / <sub>74</sub> - 84 - 20 Irrigation returning light red.
	1 <sup>30</sup>	<sup>130</sup> / <sub>80</sub> - 82 - 20
	1 <sup>45</sup>	<sup>130</sup> / <sub>84</sub> - 76 - 20 Removal 25 mg I.V. push for continued discomfort. P. Miles, RN
	2 <sup>00</sup>	<sup>150</sup> / <sub>80</sub> - 84 - 20
	2 <sup>15</sup>	<sup>160</sup> / <sub>80</sub> - 84 - 20
	2 <sup>30</sup>	<sup>150</sup> / <sub>80</sub> - 84 - 20
	2 <sup>40</sup>	<sup>120</sup> / <sub>76</sub> - 82 - 20
	3 <sup>00</sup>	<sup>130</sup> / <sub>80</sub> - 82 - 20
	3 <sup>15</sup>	<sup>110</sup> / <sub>60</sub> - 76 - 20
		Final Condition
		Satisf.
		Unsatisf.
		Specify:
		Disposition & Time
		Room No.
		Time

Signature - R.N.

3. Attend a group discussion on "Care of the Patient Recovering from Anesthesia." Bring your completed answers from Hymovich, Guide 12, and answers to B-1 and B-2.

Discuss the following situation.

### IMMEDIATE RECOVERY ROOM CARE

You are one of the nurses in the Recovery Room. You are assigned two patients who have just arrived from the OR. One has had a spinal anesthetic and the other a general anesthetic. Organize your data under the following headings:

	<i>Description of Expected Patient Reactions, Response, or Behaviors</i>	<i>Safety Precautions</i>
Spinal anesthetic	1. 2. 3.	1. 2. 3.
General anesthetic	1. 2. 3.	1. 2. 3.

What positions should these patients be in when returning from the OR to the Recovery Room?

During the recovery period? Why?

How often are their vital signs taken? Why?

What observations might make you suspect your patient is bleeding or going into shock?

List other things that you as the nurse must check for during this period. Consider priorities. Beside each item state how you might check for it.

Would you say anything to your patients during this period? Why? Or why not?

Would you give your patients any medications during the Recovery Room period? Which ones and why?

How long would these patients remain in the Recovery Room?

What would their behavior be like by the time they were ready to be returned to their room?

Assume that your patient who had a general anesthetic is a child, 4 years old. How does age influence safety precautions, vital signs, and your observations?

How would your observations and care differ if the patient was elderly?

You have returned your patient to her room. As you move her into her bed, she tells you she hears ringing in her ears. What should your next action be and why?

4. Plan for a clinical experience.












- ▲ Care for patients in the Recovery Room. Take vital signs. Observe behavior of patients, signs of shock and bleeding, respiratory distress. Assist with admission of patient, connecting drainage tubings, giving medications, setting up I.V. solutions, absorption of I.V. solutions, positioning of patients, suctioning mouth and nose, inserting nasal cannulae checking for drainage.
- ▲ If you are unable to have an experience in the Recovery Room, select a postoperative patient to study. Read his Recovery Room nursing record and list the nursing actions that you would have carried out if you had been his nurse in the Recovery Room.





## OBJECTIVES

### *Postoperative Care and the Nursing Process*

-   20. Given a list of actions, select those that will help to prevent atelectasis, thrombophlebitis, and wound infection and state how they may help.
-   21. Demonstrate explaining to a patient why and how to move in bed, ambulate, deep breathe, and cough soon after surgery, using the criteria of preventing undue strain and discomfort on the operative site.
-   22. Describe how tranquilizer, narcotic, narcotic antagonist, cholinergic, and anticholinergic drugs contribute to or relieve the following postoperative problems: distension, urinary retention, vomiting, pain, constipation, and respiratory depression.
-   23. Care for a postoperative patient during the first 24 hours following surgery, including planning, writing, and implementing a nursing care plan using the steps of the nursing process.
-  24. Care for a surgical patient more than one day postoperatively and write a nursing care plan that includes both long- and short-term goals.
-   25. Demonstrate changing dressings and giving wound care following the principles of surgical asepsis and charting your procedure and observations.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** a person's recovery from surgery. The answer to "How did it go?" or "How was the operation?" can be drastically changed for the worse if careful observations aren't made for early signs of complications and then appropriate reporting and nursing care given. The nurse sees the patient the most and must always be on the lookout to prevent complications.

Discomfort, although not always a complication, need not be great. You are the one responsible for easing discomfort. Your patient should not have to ask. Observe, check the records, and take action. Seeing a patient with numerous attachments such as a nasogastric tube and I.V., knowing that patient has an incision, and finding him or her saying, "Please do that later," may be enough to convince you to actually leave your patient alone. What will happen to him or her if you do? (See Objective 21.)

## 2. View audiovisuals.

- "Principles of Infection Control in Wound Care" (TR)
- "Assessment of Wound Healing" (TR)
- "The Surgical Dressing" (TR)
- "Wound Irrigation and Specimen Collection" (TR)
- "Closed Suction Wound Drainage" (TR)
- "Wound Care" (filmstrip, LP)
  - "Wound Healing"
  - "Dressing Change: Nondraining Wound"
  - "Dressing Change: Draining Wound"
  - "Wound Irrigation"
  - "Bandages and Binders: Parts I and II"

## 3. Read about *postoperative care* and the *effect of drugs* in medical-surgical, pediatric, and pharmacology references.

- LEG V-A on surgical asepsis and dressing changes
- LEG IV-C—irrigating a nasogastric tube.
- Preview LEG VIII-C—abdominal binders and wound irrigation.

### Book

- Smith, and Duell, 1982, "Caring for Wounds," p. 128; "Providing Diets Associated with Surgery," p. 523.

### Journals

- McConnell, E. A., "Be Prepared for Double Trouble If Your Surgical Patient's a Diabetic," *Nursing 81*, November, pp. 118–123 (metabolic changes and stress of surgery add special problems to routine postoperative care).
- Patras, A. Z., "The Operation's Over, but the Danger's Not," *Nursing 82*, September, pp. 50–55 (complications discussed include: infection, peritonitis, fistulas, dehiscence and evisceration, ileus, bowel obstruction, and hiccups. States when to expect, assessments, and interventions).
- "Promoting Wound Healing," Continuing Education Issue of *AJN*, October 1982, pp. 1543–1558.
- Flynn, M. E., and Rovee, D. T., "Wound Healing Mechanisms" (physiology of wound healing).
- "Influencing Repair and Recovery" (factors that promote or delay the repair process).
- Insert: "Basics of Dressing Change."
- Treloar, D.M., "When a Surgical Wound Bursts," *RN*, June 1984, pp. 26–32 (inserts on reducing the risk of dehiscence and on helping incisions heal).
- Weaver, A. "New Life for Lungs—Through Incentive Spirometers," *Nursing 81*, February, p. 54.

## 4. Write how you would assess the postoperative patient upon that person's return to the room. You must begin immediately. The nurse does a head-to-toe assessment that includes:

*What Is Assessed*

*What the Nurse Is Looking For*

Airway

BP, P, R

Catheters, drainage tubes

I.V.'s

Dressings

Level of consciousness

Color and temperature of skin

*[Note: The responsibility for care of the immediate postoperative patient begins as soon as that person is returned to the room. All of the conditions listed above should be of concern to the nurse receiving a postoperative patient. Be sure that you know how to do this checking and assessing for your postoperative patients]*

5. List two narcotic antagonists that are effective in respiratory depression. What are the nursing implications? The common dosage?

6. Write your answers to the questions below and bring them to your discussion. What steps of the nursing process did you use?

You have been assigned to a surgical floor for an evening shift. The patients you will be caring for are in a 4-bed room or two 2-bed rooms:

Mr. Thoms, age 60, had a supra pubic prostatectomy yesterday. He has a Foley catheter to straight drainage; an I.V. running (5% D/W 1000 cc per shift); an abdominal dressing is in place.

Mr. Williams, age 76, had a laparotomy four days ago. He has not had a bowel movement since his surgery but does have bowel sounds.

Mr. Stevens, age 45, is in the OR.

Mr. Roberts, age 29, had an appendectomy this morning. It is now 4:30 P.M. and he has not voided. He returned to the floor at 10:30 this morning.

Write (and then be prepared to discuss) what your first actions will be when you come on duty. Remind yourself of the priorities of care. What nursing implementations will you make as a result of each patient's problems during the course of the evening?

Mr. Stevens returned to the room at 5:00 P.M. following a bowel resection. What actions will you take immediately? He is complaining of severe pain and will not deep breathe and cough or move.

What will you do?

What drugs might be useful for each of these patients—for their specific problems?

Give specific examples of drugs.

Write a specific sample of the charting you would do on Mr. Stevens as he returned to the room.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

### 1. Practice each of the following activities with another nursing student:

- Explain to a patient how to move in bed and exercise his or her legs and feet, how to cough with the least amount of pain, yet effectively, and how to deep breathe.
- Splint the "incisional area" with the nurse's hands, then the patient's hands, and then try a pillow.
- Reverse roles.

What position should the patient be in to cough? How do you know a cough is effective? What do you chart about a cough?

### 2. Practice in campus lab, assisting a physician to change a dressing. Your student "physician" will not know all the special needs but you should be able to anticipate the needs and have supplies and instruments ready for use.

- Which of the following actions would you take *before* the physician gets into the room? Why? In which order?

- \_\_\_\_\_ Remove the soiled dressing
- \_\_\_\_\_ Expose the soiled dressing
- \_\_\_\_\_ Explain to the patient what will happen
- \_\_\_\_\_ Set up a sterile field
- \_\_\_\_\_ Check your supplies
- \_\_\_\_\_ Arrange a bag or newspaper to receive the soiled dressing
- \_\_\_\_\_ Focus a light on the dressing
- \_\_\_\_\_ Screen the patient for privacy

### 3. Attend a small group discussion on "Planning Postoperative Care" of Mr. Serch, Alice Tunsel, and Mrs. Greene (Objectives 16–19). Bring and take turns presenting your nursing care plans.

- List on the chalk board the physiological changes that occur during the phases of postoperative recovery. Discuss the related nursing care and observations to prevent complications and discomfort for a patient, 24 hours, 48 hours, 3–7 days, and 7 days following major surgery and a general anesthesia. You may want to make a chart of this exercise. Bring as much as you can to the group session and add and share.
- What does an elevated temperature indicate during the first 24–72 hours and then later?
- Discuss the increased need for protein during the postoperative period. How can you be sure that this need is met? What is the usual progression from I.V.'s to a regular diet for a postoperative patient? Why should a patient remain on liquids until bowel sounds are heard and the bowels begin working?



- List the signs and symptoms of the following wound complications: hematoma, infection, evisceration, and dehiscence. Discuss the likely timing of each. What action would you take if you suspected one of these complications?
- Discuss postoperative complications and elderly patients. What differences would you expect to find in their susceptibility to infection and the symptoms they present?
- What would you do to involve the parents in Alice's care? What if other members of the family or friends called and wanted to help? What would you do or say? What growth and development expectations do you have for Alice?

You will have more opportunity to practice these skills in later LEGS when the children are hospitalized for a longer time. Begin now. Think about developmental tasks for a 4-year-old.

### PROBLEMS FOR SOLVING

The evening after surgery, Mrs. Greene's blood pressure is 100/66, P 94.

- You check to see what her blood pressure was before and after surgery. Where do you find this information?

Her normal BP is 126/84, P 76, and postoperatively she has been running between 118–112/80–72. You decide to call the doctor and report the blood pressure.

- What additional information do you want to know before calling him in order to help him decide whether the patient may be bleeding? (There are at least three additional observations you should make.) Why?

On the third day, Mrs. Green's doctor asks you if there was any brown drainage on the dressing when you changed it the day before. You don't remember, and so the two of you look in the nurse's notes. The notes read "Dressing changed. Small amount of drainage."

- How do you feel now? What information should have been included besides color and type of drainage? What does "small" mean to you—one 4×4 or five 4×4s, or one-half of an ABD pad?

The afternoon after surgery, Alice asks you for a soda.

- You have both coke and ginger ale in the kitchen. Which will you give her and why? What observations must be made to determine if she is bleeding?

Alice wakes up crying at 3 A.M. and has a large tarry stool. Her color is paler than previously, according to her mother.

- What would you do now if you are the nurse in charge?

4. Plan for a clinical experience.






- ▲ Care for a postoperative patient. Begin a NCP before caring for the patient.

*[Note: It will be necessary to read about each patient's surgical condition and special postoperative needs ahead of time until you have gained in experience and knowledge. Keep the care plan after you have completed the lab and make comments on it to guide you when you care for your next patient with similar needs.]*

- ▲ Care for an elderly postoperative patient. Be alert for signs of confusion that might be caused by stress, trauma, anesthesia, drugs, and alteration in environment and life-style associated with the surgery. Be prepared to share in postconference what you did to prevent this from occurring or how you intervened if confusion was present. *Confusion is not effectively treated by sedation and restraint; it may be necessary for you to act as a patient advocate to avoid such measures.* Discuss how this might be done.
- As you care for patients, think about why certain nursing interventions are needed. What discomforts are you preventing? Easing? What nursing actions can you take to either assist the action of the drug groups in Objective 22 or require less of the drugs? Work at it. There is no magic. A really good nurse takes action because of learned rationale.

## OBJECTIVES

### *Planning Care for Two to Four Patients*

-    26. *Given two to four patients to prepare for surgery during a specified period of time, state how you would organize your time and implement care without forgetting any details, completing the preoperative checklist and assessing patient needs.*
-   27. *Describe two ways a family member or a friend could assist a patient both pre- and postoperatively in a positive manner and how the nurse could facilitate this.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** what you hear patients say after returning home following surgery. For example, "Oh, it was really O.K. except that I was so sick from the anesthesia." "I just couldn't get going even though I didn't really hurt." Family members can be a great help. Observe and learn how to help patients and families cope. You can do this even when you have several patients to prepare and care for. But it takes effort and organization. You can do it!
2. **Read about *planning patient care*** in medical-surgical references.

#### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Plan for a clinical experience.**
  - ▲ Find out how many patients are going to surgery in the morning and when they are scheduled. Read their preoperative orders and look at their checklists. Write out exactly how you would proceed if you were going to prepare them all for surgery.
  - ▲ Prepare two or three patients for surgery and be available to continue their care until they are taken to surgery.
  - ▲ Care for patients who have visiting relatives. Plan ahead of time which observations and/or which actions could be accomplished by a relative in attendance and try to determine if the relative would like to be involved. Helpful areas are mouth care, forcing fluids, recording intake, observing for side effects of medications, giving a back rub, checking color, and circulation. Try one or two areas and see how the relative likes being involved. Don't desert the patient because someone else is there.

Examine your own feelings during this experience. How do you like someone else caring for “your” patient? How do you like having to consider the relative’s needs as well as your patient’s? How do you determine whether the relative really wants to be involved but is afraid or if the relative would rather not be asked to participate? How do you explain treatments and routines to the visitor? Can you avoid using medical terminology?



# LEG VII-A

## Experiencing Surgery

### HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VII-A are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the "doing" Objectives. Use a separate sheet of paper for these answers, and then use the answers in clinical or campus lab for your own evaluation.

#### Objectives

#### Questions

1. How can a patient's postoperative discomforts be affected by preoperative *emotional preparation*? List two ways.
2. What clues is the following patient giving the nurse about his preoperative fears? What effect do *each* of the nurse's responses have on the patient's willingness to explore his thoughts and express his fears?
  - (a) P: I sure hated to have to come in the hospital at this time. It's the busiest time for us at work.  
N: Oh, what type of work are you in?  
(b) P: I'm a salesman. Sell home-cleaning equipment. I visit homemakers during the day in their homes. Strictly a commission job. Sure hate to miss the business for this next month, and who knows how much longer after that. But the doc said I shouldn't put it off. The surgery, that is. Said it's pretty rare, but there's always the chance it's malignant. Course he doesn't think so in my case.  
N: I'd believe your doctor if I were you. Your doctor is a well-respected surgeon in this hospital.  
(c) P: Oh, I do.  
N: But you can't help that little nagging possibility in the back of your mind, can you? It's not easy to wait and not know.  
(d) P: That's exactly it. I'm willing to go through with it and really don't mind missing the work if it just turns out not to be cancer.  
N: You've probably read a lot about cancer in the papers and see the advertisements on TV. But facing the possibility of it happening to you seems so remote.
3. Mrs. R is going to surgery in two days for a colostomy operation. You know that a colostomy is an artificial opening in the abdominal wall

for the purpose of emptying the intestine and can be permanent or temporary, depending on the cause. In either case, the patient's body image will undergo a change.

Ask another student to take the part of the patient, and you take the part of the nurse preparing the patient for her change in body image. Ask a third student to write down what is said during the role playing. Evaluate the written recording for evidence of "helpful statements" you made to the patient.

- 4                    4. How will the following patient's age and physical condition affect his condition while he is having surgery?

Mr. Steel, age 45, is a moderate to heavy smoker with a history of having had hepatitis. He is 20 lbs. overweight and has a desk job. The only physical exercise he gets is playing golf on the weekends. He has no history of kidney or heart disease.

- 5                    5. State three nutritional conditions that increase the risk of surgery.
- 6                    6. State three nursing implications of preoperative diet therapy.
- 6                    7. State three nursing implications of postoperative diet therapy.
- 7                    8. Mr. Steel (see question 4) is having surgery to repair a peptic ulcer. His postoperative orders will include:

NPO  
Gastrostomy tube to straight drainage  
Intake and output  
I.V.'s  
Turn, cough, deep breath q4h  
Vital signs q3h after stable  
Dangle to void this evening  
Ambulate tomorrow  
Change dressing prn  
Demerol 75 mg I.M. q 3—4 h prn

What preoperative teaching, explanations, and actual practice will this patient need?

- 8                    9. Demonstrate that you can make a surgical bed and prepare a room for a surgical patient.
- 9                    10. Mr. Steel's preoperative orders are listed below:  
Shave and skin prep for laparotomy  
NPO at midnight  
SS enema in evening  
Nembutal gr iss hs po

Atropine 0.4 mg	} I.M. on call
Vistaril, 75 mg	
Demerol, 50 mg	

Which of the following actions will you take to prepare Mr. Steel the evening before surgery?

- (a) give enema
- (b) have patient sign operative consent if not already done
- (c) safeguard valuables
- (d) see that operative site is shaved
- (e) make sure all laboratory specimens are collected and work completed
- (f) remove nail polish, makeup, and jewelry
- (g) tape wedding band
- (h) give sedative to promote sleep
- (i) remove water from bedside stand and put up NPO sign at midnight
- (j) remove dentures
- (k) pin religious medals on gown
- (l) make sure identification band is on patient's wrist
- (m) make sure history and physical completed in patient's chart
- (n) bed rails up
- (o) encourage oral fluids until NPO is ordered
- (p) bathe
- (q) record a BP taken before preoperative medication

- 10      11. Select which of the following lab reports would need to be called to the physician's attention preoperatively.
- (a) Hemoglobin 11.4 gm/100 cc
  - (b) Hematocrit 45%
  - (c) WBC 8,000/cu mm
  - (d) Hematocrit 32%
  - (e) WBC 14,000/cu mm
- 11      12. List the equipment you would need to do a skin prep on a patient prior to surgery, and list the steps you would take to do it.
- 12      13. It is 5 A.M. You have a patient with the following preoperative orders:

Nembutal 100 mg I.M. at 7 A.M.	} I.M. on call
Morphine gr ¼ (16 mg)	
Scopolamine gr 1/150 (0.4 mg)	

The following preoperative checklist has the activities numbered. Write down the numbers of the activities in the order in which you would do them and the time. Write any additional care you would give the patient that is not included on the list. (Use the following sample preoperative checklist, or use one from your hospital.)

## PREOPERATIVE CHECKLIST

This completed sheet must be attached to front of patient chart when patient goes to OR.

Patient's Name \_\_\_\_\_ Room No. \_\_\_\_\_ M.D. \_\_\_\_\_

	Check if done	REMARKS
1	BP	
2	Identification band on	
3	History & physical completed	
4	Consultation completed	
5	Laboratory work completed	
6	Blood requested	
7	T.P.R. charted	
8	Pre-op medication charted	
9	Bed rails up	
10	I.V. poles	
11	Makeup, nail polish and jewelry off	
12	Wedding ring taped on	
13	No hairpins	
14	Medals pinned on gown	
15	Dentures & partials out (unless ordered in)	
16	Remove <i>all</i> prosthesis (leg, eye)	
17	Clean gown	
18	Voided & time	
19	Sanitary belt off	
20	Permit signed	
21	Allergies	

Signature of orderly doing prep

Signature of R.N. making check

\_\_\_\_\_  
Date \_\_\_\_\_

\_\_\_\_\_  
Date \_\_\_\_\_

13.                      14. Select the appropriate action(s) from the list at the right for each of the following drugs, for use as preoperative medications:



*Drugs**Drug Actions*

- |     |                           |     |                           |
|-----|---------------------------|-----|---------------------------|
| (A) | morphine                  | (a) | drowsiness                |
|     | desired action(s) _____   | (b) | nausea, vomiting          |
|     | undesired action(s) _____ | (c) | flushed, warm             |
| (B) | scopolamine               | (d) | excitement, restless      |
|     | desired action(s) _____   | (e) | depress respirations      |
|     | undesired action(s) _____ | (f) | reduce anxiety and fear   |
| (C) | Vistaril                  | (g) | dilate the pupil          |
|     | desired action(s) _____   | (h) | reduce respiratory and    |
|     | undesired action(s) _____ |     | salivary secretions       |
| (D) | Nembutal                  | (i) | reduce nausea, vomiting   |
|     | desired action(s) _____   | (j) | delirium                  |
|     | undesired action(s) _____ | (k) | hypersensitivity reaction |

- 14            15. Demonstrate administering a preoperative medication exactly on time. Write a list of steps you expect to take, including the time of starting preparation and completion of administration and charting.
- 15            16. You are to administer atropine gr 1/500 (0.12 mg) I.M. to a child. You find the solution in the narcotic cupboard and it is labeled gr 1/200 (0.3 mg) cc. How many cc's or minims will you give? How will you administer it to the child?
- 16            17. List three expected behaviors of a patient during his or her postanesthesia period following a general anesthetic, and list three safety measures taken to protect the patient during this period.
- 17            18. List six observations that would make you suspect your patient might be bleeding or going into shock.
- 18            19. List the steps you would take to suction a patient's mouth and nose using either a wall suction or a portable suction machine.  
How does the procedure differ when the patient has had a tonsillectomy?
- 19            20. Your 83-year-old patient in the Recovery Room begins to get restless. She has an I.V. running and a catheter in place. She responds to your questions with mumbles. Which of the following actions would you take to assess her condition and state why:  
(a) Check catheter for patency and type of drainage.  
(b) Calculate how fast the I.V. is running and how much fluid she has received.  
(c) Check for bleeding at the wound site.  
(d) Ask her if she is having any pain.  
(e) Check her vital signs.  
(f) Observe the rate and depth of her respirations.

- 19            21. Your patient then begins to vomit. What is the most important action you can take at this time and why:
- (a) Call the doctor.
  - (b) Splint the incision.
  - (c) Get an emesis basin.
  - (d) Position patient on her side.
- 19            22. Patients in the Recovery Room can develop hypotension due to which of the following causes:
- (a) The effect of general anesthesia.
  - (b) The effect of spinal anesthesia.
  - (c) Being exposed in a cold room.
  - (d) Being turned and moved quickly.
- 19            23. How often are vital signs routinely checked immediately following surgery?
- (a) Every hour until stable.
  - (b) Every half hour until stable.
  - (c) Every 10–15 minutes until stable.
  - (d) Every 5 minutes until stable.
- 19            24. You are caring for a child immediately following a T & A. The Recovery Room nurse shows you how to hold the child's jaw forward. Why is this important? Select the best answer:
- (a) It keeps the tongue pushed forward and the airway open.
  - (b) It encourages the drainage to flow out of the mouth.
  - (c) It improves respiration.
  - (d) It prevents aspiration of vomitus.
- 20            25. Which of the actions in the right-hand column would help to prevent each of the following postoperative complications? Write the letters in the blanks.
- |                        |   |
|------------------------|---|
| atelectasis _____      | (a) aerosol therapy                                   |
| thrombophlebitis _____ | (b) avoid pressure under knee                         |
| wound infection _____  | (c) coughing  |
|                        | (d) apply elastic bandages or hose                    |
|                        | (e) deep breathing                                    |
|                        | (f) skin prep preoperatively                          |
|                        | (g) turning in bed                                    |
|                        | (h) surgical aseptic technique during dressing change |
|                        | (i) walking   |
|                        | (j) medical aseptic technique                         |
|                        | (k) sitting in a chair                                |
|                        | (l) forcing fluids                                    |

21

26. Demonstrate explaining to the following "patient" why and how to ambulate, deep breathe, and cough, and then help him to carry out these instructions while another student observes.

Mr. Striker, age 56, had a laparotomy done on Monday. This is his second postoperative day. These are his postoperative orders for today:

levine tube to suction, clamp when OOB  
3,000 cc I.V. to be in by bedtime  
change dressing prn  
walk b.i.d. today  
deep breathe and cough q4h  
NPO  
TED stockings from toes to groin

You go into the room, and he is looking sleepy. He says, "Oh, please don't make me bathe now. I'm so tired. Didn't sleep at all last night." What will you say and do?

22

27. Fill in the blanks with "increase," "decrease," or "no effect."

- (a) Morphine will \_\_\_\_\_ the problem of distention and constipation after surgery and will \_\_\_\_\_ the problem of pain.
- (b) Scopolamine will \_\_\_\_\_ the problem of postoperative vomiting and will \_\_\_\_\_ the problem of urinary retention and constipation.
- (c) Phenergan will \_\_\_\_\_ postoperative vomiting and will \_\_\_\_\_ the pain.

23, 24

28. List two actions that a nurse could take to relieve each of the following postoperative problems other than giving medication.

(a) distention (gastrointestinal)

(b) urinary retention

(c) vomiting

(d) pain

(e) constipation

(f) respiratory depression

- 23            29. Write a nursing care plan for a patient during his or her first 24 hour period following surgery. Use a real patient or a case study provided by your instructor.
- 24            30. In the following situation, identify and state two problems, and list the nursing measures that you feel would lead to resolving those problems.
- Mr. R. is a 25-year-old football player who has had an appendectomy. The first postoperative day he stood to void, and was able to void, but he became dizzy and nauseous and required assistance to lie down. Later, he was assisted to sit up in a chair where he sat stiffly and requested that the nurse not leave him.
- 24            31. Mr. R. has an order for two types of pain medication: an injection of Demerol and an oral codeine tablet. List the actions you would take to determine which pain medication to administer to Mr. R.
- 24            32. When writing your nursing care plan you need to meet Mr. R.'s basic human needs. Which of the following have the highest priority?
- (a) Need for independence.
- (b) Need for emotional security.
- (c) Need for spiritual security.
- (d) Need for rest and activity.
- (e) Need for self-esteem.
- (f) Need for elimination.
- 25            33. Write the steps you plan to take as you give wound care and change a sterile dressing, following the principles of asepsis. Ask another student to observe you, using your checklist, as you change a sterile dressing. What information must be included in your charting?
- 26            34. Look at the list of patients going to surgery during one morning on your clinical area. Imagine that you are either the night nurse or the day nurse. Plan how you would organize your actions so that two to four of the patients were prepared on time. The night nurse and the day nurse each do part of the preparation, depending on what time the patient is scheduled. List the actions you would take. Ask another student to do the same thing. Compare your lists.
- 27            35. Imagine that an elderly woman is being prepared for surgery for removal of gallstones. Her husband is anxious and always hovering over her. List three actions he could take to assist in her care before and/or after surgery and what the nursing action would be to make this possible.



## LEG VII-B

### Fluid and Electrolyte Balance During Illness

#### WHAT WILL I LEARN?

In LEG IV-C you learned how to measure fluid intake and output and to recognize some symptoms of *dehydration*. Many years ago this was all nurses needed to know. Since then, scientists have begun to recognize the importance of all the fluids in our body such as urine, gastric and intestinal juices, sweat, blood, and cellular fluids.

In the hospital, patients' fluid and electrolyte systems are often drastically altered when they are kept NPO and given I.V. fluids. We know now that patients can be critically influenced by imbalances in a very short time. Patients with nasogastric tubes connected to continuous or intermittent suction are in danger of fluid and electrolyte imbalance unless the *nurse is alert to early signs and symptoms*! You will learn about intestinal decompression tubes, what the various lumen allow you to do, where to get the equipment, and how to help with intubation.

In LEG VI-C you learned what arterial blood gas analysis measured and read about patients developing *respiratory acidosis* and *alkalosis*. In LEG VI-B you discovered that acidosis can occur from uncontrolled diabetes and then it is called *metabolic acidosis*. As all of these new terms come tumbling at you, you may wish to hide under a rock (denial?) or wish that you were nursing in an earlier era. Be that as it may, believe us when we say that we and your instructors understand because we've had similar impulses at one time or another. But it is a subject that will follow you relentlessly into every clinical area and every Level of LEGS. If you have already studied fluid and electrolytes in one of your science courses, review your notes before starting this LEG. You may need more help than usual from your instructor during this LEG because the majority of the reading resources are complex for a beginning student to understand completely. However, by the time you reach Volume IV and care for patients in intensive care, you will be able to understand them, and will want to use these readings again as references.

Many of the Learning Experiences in this LEG are "write" or "fill-in" exercises. At the completion of LEG VII-B you will have a reference LEG on the **regulatory functions** of fluids, electrolytes, and acid-base balance. Move this LEG along as you study other LEGS so that it is available for quick reference. Frequent review will make this information an integral part of you.

The **Content of the Objectives** for LEG VII-B is:

Fluid Balance and Imbalance (1, 2)

Fluid and Electrolyte Imbalances (3-7)

Acid-Base Imbalances (8-10)

Parenteral Solutions (11-16)

Gastric and Intestinal Tubes and Feedings (17-20)

## WHAT'S AHEAD IN LATER LEGS

LEG VII-C—*fluid excess.*

LEG VIII-C—*hyperalimentation therapy.*

LEG X-B—*administering blood, I.V. fluids, and medications and problems with hyperalimentation therapy.*

LEG XI-C—*intubating and feeding an infant.*

LEG XII-C—*arterial blood gases.*

LEG XIII-A—*fluid shifts following a burn.*

## OVERVIEW OF LEARNING EXPERIENCES IN LEG VII-B

<i>Objectives</i>	<i>Campus Lab Practice</i>	<i>Group Discussions/Lecture</i>	<i>Clinical Lab Focuses</i>
1. Physiology of fluid and electrolyte balance 2. Dehydration in all ages		B2. Normal fluid and electrolyte balance	B3. Look at lab reports and I & O records for fluid and electrolyte balance
3. Nursing care for dehydration 4. Use of fluid and electrolyte assessment checklist 5. Sodium, potassium, magnesium imbalances (H) 6,7. Nursing interventions for vomiting and diarrhea		B1. Nursing patients with problems of dehydration, hyponatremia, diarrhea, and vomiting GES Objective 7	B3. Look for patients with signs of dehydration Read charts Care for children with fluid and electrolyte imbalances
8,9. Respiratory and metabolic causes of acid-base imbalances (H) 10. Recognizing when metabolic alkalosis might occur (H)	B3. Lab report forms	B1. Acid-base imbalance	B4. Observe breathing exercises Look at charts and lab reports Care for patients with acid-base imbalances
11. Types of parenteral solutions 12. Using a microdrip set (H) 13. Adding I.V. solutions to existing infusion 14. Caring for venipuncture site 15, 16. Intervening when I.V. fails to function properly		A5. The nurse's role in hospital maintenance with dietitian B1. More on fluids and electrolytes—parenteral solutions	B2. Observe I.V. therapy Care for infusion site
17, 18. Insertion and use of gastrointestinal tubes 19. Enteral feedings 20. Inserting a nasogastric tube	B4. Nasogastric intubation and delaying tactics	GES, Objectives 17, 19, 20	B6. Observe patients with various nasogastric and decompression tubes Assist with insertion and removal of tubes Give special mouth care to patients with tubes Observe for fluid and electrolyte imbalance Give enteral feedings

# NEW TERMS AND ABBREVIATIONS

absorption	hypermagnesemia
acid	hypernatremia
aldosterone	hypertonic
alkali	hypocalcemia
anabolism	hypokalemia
anion	hypomagnesemia
ascites	hyponatremia
base { excess deficit	hypotonic
bicarbonate	ICF
buffer	interstitial
carbonic acid	intracellular
catabolism	intravascular
cation	ion
CO <sub>2</sub> combining power	isotonic
dependent edema	mEq
ECF	metabolic { acidosis respiratory } alkalosis
extracellular	osmolarity
HCO <sub>3</sub>	periorbital
homeostasis	pH
HPO <sub>4</sub>	plasma
hypercalcemia	semipermeable membrane
hyperkalemia	specific gravity



# OBJECTIVES

## *Fluid Balance and Imbalance*



1. Describe the role of each of the following in maintaining fluid and electrolyte balance in the body: semipermeable membranes, plasma proteins, kidneys, gastrointestinal tract, nervous system, hormones, electrolytes.



2. Describe orally or in writing why dehydration or ECF volume deficit is more common in infants and the aged than in young and middle-aged adults.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** all the body parts and particles of food and fluid that work together automatically and normally to keep us alert, healthy, and happy. When opposite symptoms occur, your fluids and electrolytes may be mildly out of balance. Try this: drink a tall glass of water, Gatorade, or other soft drink after a long day at school, and notice the quick pickup in your feeling. Better yet, train yourself to take several sips of water every time you pass a fountain (at least eight times a day), and you may not need the big glass at the end so much.

This is a fascinating, vital part of our body's ability to adapt and keep us going. Learn it well, and then remember to stay hydrated for yourself and to observe your patients for signs of imbalances; then make the necessary interventions.

### 2. View audiovisuals.

"Fluids and Electrolytes" (B), 1980,

"The Basics"

"Extracellular Fluid"

"Intracellular Fluid"

"Fluids and Electrolytes" (TR), 1984,

"Fluid Balance"

"Isotonic Volume Changes"

"Hypotonic Volume Changes"

"Hypertonic Volume Changes"

"Clinical Application of Fluid and Electrolyte Imbalance: Deficits" (18 min, AJN): Postoperative cholecystectomy patient is the example.

"Clinical Application of Fluid and Electrolyte Imbalance: Excesses" (23 min, AJN) CHF patient is the example.

3. **Begin** reading in a fluid and electrolyte reference recommended by your instructors. You will find a list of several good ones below. As you read, fill in the answers to the questions in A-4. Continue to use your reference as you complete the LEG. With later

Objectives you will also find some good journal articles that will supplement your basic reference. Don't expect to understand or be able to remember all the information the first time you read it. Read a chapter, attend a discussion, then reread the material.

Review the introduction to fluids and electrolytes in

LEG IV-C, including symptoms of dehydration.

LEG I-B, on nutrients in food.

### Books

Groer, Maureen Wimberly, *Physiology and Pathophysiology of the Body Fluids*, St. Louis, Mosby, 1981.

Hymovich, 1982, Guide #9, "An Infant with Fluid and Electrolyte Imbalance," p. 97 (gastroenteritis and severe dehydration in 2½-week-old infant).

Nicksic, Esther Norma, *The Plus and Minus of Fluids and Electrolytes*, Reston, VA, 1981.

Smith and Duell, 1982, "Chart on Electrolyte Sources, Normals, Functions and Imbalances," pp. 506-507; "Chart on Electrolyte Treatment of Imbalances," p. 509.

Stroot, Violet R., Lee, Carla A., and Schaper, C. Ann, *Fluids and Electrolytes: A Practical Approach*, 2nd ed., Philadelphia, Davis, 1980.

### 4. Write your answers to these questions as you read and view.

- (a) Body water contains cations and anions. Each cation is always balanced chemically by an anion. So, if a cation increases, the anions also increase. In this fashion, electrolyte balance is maintained. Which of the following are cations (+) and which are anions (-)? Na\_\_\_\_\_ K\_\_\_\_\_ Cl\_\_\_\_\_ HCO<sub>3</sub> (bicarbonate)\_\_\_\_\_ Mg \_\_\_\_\_ HPO<sub>4</sub> (phosphate)\_\_\_\_\_.

Which of the above anions and cations might join together chemically?\_\_\_\_\_

List the major cation found in the ECF (extracellular fluid)\_\_\_\_\_

List the major anion found in the ECF\_\_\_\_\_

List the major cation found in the ICF (intracellular fluid)\_\_\_\_\_

List the major anion found in the ICF\_\_\_\_\_

Which of the following are contained in the ECF\_\_\_\_\_, the ICF\_\_\_\_\_?

1. plasma in blood vessels
2. tissue fluid in interstitial spaces
3. intracellular fluid

- (b) List two ways that the osmolarity (the density of a fluid) of body fluids can be altered.

\_\_\_\_\_  
\_\_\_\_\_

Define isotonic\_\_\_\_\_

osmosis\_\_\_\_\_

electrolytes\_\_\_\_\_

active transport\_\_\_\_\_

Which of the following can be actively transported across a cellular membrane:

Na, K, Cl, protein\_\_\_\_\_

Why do persons with edema often get placed on a low sodium diet?\_\_\_\_\_

(c) Why do persons who work outdoors in a hot climate take salt tablets?\_\_\_\_\_

What changes in the osmolarity of the body fluids can cause thirst?\_\_\_\_\_

What are the major purposes of electrolytes in the body?  
\_\_\_\_\_

(d) List several food sources for each of the following:

Na\_\_\_\_\_

Cl\_\_\_\_\_

K\_\_\_\_\_

protein\_\_\_\_\_

Ca\_\_\_\_\_

Mg\_\_\_\_\_

(e) Describe briefly how each of the following work together to regulate the fluid and electrolyte balance in our bodies. What does each one do?

semipermeable membranes\_\_\_\_\_

plasma proteins\_\_\_\_\_

kidneys\_\_\_\_\_

gastrointestinal tract\_\_\_\_\_

nervous system\_\_\_\_\_

hormones\_\_\_\_\_

electrolytes\_\_\_\_\_

5. Answer the following questions as you read at least one article on fluid imbalance in children and one on the aged.

(a) Describe how the amount of water a person's body contains changes with age and state one implication it has for each of the following age groups:

Infant

Aged

- (b) Describe what fluid shift occurs between the ECF and ICF when the following situations occur.

A man is playing baseball on a hot day and sweats a great deal. \_\_\_\_\_

When the game is over, he is very thirsty and drinks a quart of water. \_\_\_\_\_

When does the osmolarity of the ECF change, and how does the body compensate for this change?

- (c) Describe the difference between the following types of dehydration:

<i>Difference</i>	<i>Causes</i>
Isotonic	
Hypertonic	
Hypotonic	

- (d) Describe in the space provided how each of the following could change due to dehydration.

	<i>Infant</i>	<i>Aged</i>
Respirations		
Skin turgor		
Tearing and salivation		
Mucous membranes		
Thirst		
Eyeballs		
Behavior and general appearance		
Cry		
Body temperature		
Pulse		
Urine output		



Urine specific gravity		
Stools		
Vomiting		
Hematocrit		
Weight change		

**Read** about Luis, who is admitted with vomiting and diarrhea (page 260). Which of the above changes did he have on admission?

List the body sites where dehydration can best be observed.

How do the vital signs, hematocrit, urine specific gravity, and serum sodium change with dehydration?

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Fill in the blanks below.

Na is a \_\_\_\_ ion; is a \_\_\_\_ electrolyte; is a cation.

Cl is a \_\_\_\_ ion; is a \_\_\_\_ electrolyte; is an anion.

Sodium and water are excreted \_\_\_\_.

Ideally body fluids are \_\_\_\_.

Extracellular fluid is composed of \_\_\_\_  
and \_\_\_\_ fluid.

Fluid that occupies "spaces between" is called  
\_\_\_\_ fluid.

Fluid passes from cells to spaces and back by \_\_\_\_.

Body fluids have equal osmotic pressure that is  
called \_\_\_\_.

To keep the ECF isotonic the kidneys must reabsorb  
\_\_\_\_ Na.

Sodium combines with \_\_\_\_.

Therefore, the kidneys also \_\_\_\_ water.

A symptom that the body needs more fluid is \_\_\_\_.

**Cover the answers.**

+ +

- -

together

isotonic

plasma

interstitial

interstitial

osmosis

isotonic

↑

water

reabsorb

thirst






2. **Attend** a group discussion on "Normal Fluid and Electrolyte Balance." Bring your completed answers and your questions.

**3. Plan** for a clinical experience.

▲ Look at laboratory reports and intake and output records. Review how you know there is a fluid and electrolyte *balance*.

# OBJECTIVES

## *Fluid and Electrolyte Imbalances*

-  3. *Given a patient with problems of dehydration due to diarrhea, inadequate fluid intake, postoperative bleeding, or nausea and vomiting, indicate two specific nursing actions for each problem.*
-  4. *Demonstrate completing the Fluid and Electrolyte Assessment Checklist as you care for a patient with a possible imbalance, and list three independent nursing actions you could take that are related to the imbalance.*
-  5. *List two observations that you would make and two appropriate nursing interventions related to each of the following fluid and electrolyte imbalances: decreased sodium, increased sodium, decreased potassium, decreased magnesium. (E)*
-  6. *Given patients with problems of nausea and vomiting due to either drug allergy, intestinal obstruction, vertigo, or postsurgery, describe why vomiting occurs with each and state two nursing actions specific for each.*
-  7. *Identify specific problems for given patients with diarrhea and list, orally or in writing, the steps of the nursing process you would apply toward reaching a nursing solution.*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** your own symptoms: thirst following a ham dinner; polyuria after drinking several glasses of fluid; feel of your skin with fever. These are common signs of fluid and electrolyte regulatory actions by the body systems. Try to explain logically the signs and symptoms of fluid and electrolyte imbalances you observe. Learn what to do to help your patient.

### 2. View audiovisuals.

"Pathophysiology of Diarrhea: An Approach to Therapy" (17 min., EL), 1973.

"Fluids and Electrolytes: Potassium, Calcium, pH" (B), 1980.

"Fluids and Electrolytes (TR), 1984.

"Potassium Balance"

"Sodium Imbalances"

"Potassium Imbalances"

3. **Read** in fluid and electrolytes medical-surgical and pediatric references about the *imbalances and causes* listed in the Objectives.

## Programmed

Kee, Joyce, *Fluids and Electrolytes and Clinical Applications*, New York, Wiley, 1982. Chapters 2 and 5.

## Journals

Felver, Linda, "Understanding the Electrolyte Maze," *AJN*, September 1980, p. 1591.

Quinlan, M., "Would You Recognize this Dangerous Electrolyte Imbalance?" *RN*, March 1983, p. 51 (magnesium imbalance, signs of deficiency and excess, treatment and prevention).

Wink, D. M., "Fluid-Induced Hyponatremia in Infancy: A Preventable Problem," *AJN*, May 1983, pp. 765-767 (needs of normal and ill children are discussed. Typical problems with children, how they are managed or prevented. Inserts: Content of oral and I.V. fluids commonly used for sick children).

### 4. Fill in the blanks below as you read the references.

<i>Fluid and Electrolyte Imbalance</i>	<i>Causes</i>	<i>Nursing Observations</i>
Increased sodium		
Decreased sodium		
Decreased potassium		
Decreased magnesium		

### 5. Match these terms:

- |                     |                           |
|---------------------|---------------------------|
| (a) hyponatremia    | _____ Increased magnesium |
| (b) hypernatremia   | _____ Increased sodium    |
| (c) hypokalemia     | _____ Decreased potassium |
| (d) hyperkalemia    | _____ Decreased magnesium |
| (e) hypomagnesemia  | _____ Increased potassium |
| (f) hypermagnesemia | _____ Decreased sodium    |

### 6. Write the differences in symptoms (for example, onset, type of stool, etc.) for diarrhea in the pediatric and adult patient due to:

<i>Causes</i>	<i>What You Will Probably Observe</i>
Drug allergy	
pediatric	
adult	



Impaction	
pediatric	
adult	
Diet	
pediatric	
adult	
Infection	
pediatric	
adult	

7. **Write** when each of the following interventions would be appropriate for a patient who has just vomited. State whether this is appropriate to a pediatric or an adult patient.

Give water if allowed.

Give special mouth care.

Send the vomitus to the lab.

Note the characteristics of the vomitus.

Report the vomiting to the appropriate person (team leader, head nurse, or physician).

Administer an antiemetic.

Stay with the patient for a few minutes.

Get the patient up in a chair.

Raise the head of the bed.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a lecture/small group discussion on "Nursing Patients with Problems of Dehydration, Hyponatremia (Na<sup>+</sup>), Diarrhea, and Vomiting."

- (a) Discuss your immediate thoughts (observations and questions) if you found the following patients complaining of thirst? Why? What more will you look for? Why? What action will you take? Why?

1. Mr. H. on his third postoperative day after major abdominal surgery.
2. Little Jane Feba, age 5, who has a high fever due to a generalized infection, tells you, "I'm thirsty."
3. Jack Drie is admitted to the hospital at 3 P.M. He has had intermittent vomiting for two days and has retained little fluid. A pyloric stricture is diagnosed by x-ray. He is scheduled for surgery to repair the stricture at 8:00 A.M. tomorrow. What is your major role for this patient up until midnight the night before surgery? State your rationale.
4. Carol Ray has a possible intestinal obstruction.

Orders:

BP q2h

Check urinary output qh

To OR tomorrow A.M.

- (b) What do you expect to happen to the BP and P if there is an ECF↓? Why? What would anuria or oliguria preoperatively indicate to you? If the patient is not voiding a minimum of 50 ml/hr before surgery, what actions would you expect to be taken? How would you prepare for it?

After surgery Carol Ray returns with an I.V. in place, also a nasogastric tube to constant suction. She is NPO. You allow her to rinse her mouth frequently. The second postoperative night she tells you she feels frightened, that she feels she is going to die, and asks you to please call her husband. It is 2 A.M.

- (c) What actions should you take and why? Call her husband? Call her doctor? Take her vital signs? Check her I and O? Give her sedation?
- (d) What nursing actions do the following patients need?

5. Patient, 53-year-old, postoperative. TAH (total abdominal hysterectomy) receiving I.V. because of inadequate intake of oral fluids. She appears anxious, and her breathing sounds labored.
6. Young child with dehydration is receiving I.V. fluids. You have not been able to get the child to void, and there is no record of voiding within the last six hours. You notice that his eyes are looking swollen, and his weight this morning has increased 4½ pounds in 24 hrs.
7. Geriatric patient with behavior changes: confused as to time and place, drowsy, and has periods of being "out of contact." This patient has been hospitalized for three days following a left hip nailing. She has taken no oral fluids and is taking about 2,500 cc I.V. fluid per day.
8. Your patient had a paracentesis two days before. You notice that he has a distended abdomen and is complaining of shortness of breath, and you note pitting edema of his legs.
9. A 6-week-old is admitted to isolation with a diagnosis of gastroenteritis, manifested by nausea, vomiting, diarrhea, and irritability. The doctor orders:

I.V. therapy

NPO

Stool cultures  $\times$  3

The mother is standing outside the door while the baby is crying vigorously. As the nurse approaches, the mother becomes hysterical and states, "If you'll only feed him, he will stop crying. He's just hungry."

- (e) How would you handle this situation?

What observations would you make related to fluid and electrolyte imbalance?

10. A patient was admitted this afternoon for a possible bowel obstruction. You come on duty at 11 P.M. and are told in report that the new patient vomited twice and was given Phenergan prn. As you make rounds you notice his respirations are shallow but regular. He is sleeping and his foot is jerking under the sheet as if he is having a dream. When you wake him up at midnight to take his TPR he jumps and seems to have a hard time holding the thermometer in his mouth.

- (f) What observations will you chart at midnight about this patient that might be related to a fluid and electrolyte imbalance?

What decisions do you need to make?

What imbalance is he susceptible to?

What lab work might be ordered? Why?

- (g) In the following two figures, contrast the visible signs that could indicate fluid and/or electrolyte imbalance. Mark the areas of the symptoms. State the nursing action you would take for these patients. Discuss the use of the Fluid and Electrolyte Assessment Checklist that follows on page 245.



11. An 83-year-old lady has just been transferred to your unit because of symptoms of dehydration and electrolyte imbalance (verified by the lab report). Her physician tells you to be sure that the patient is not constipated and prescribes a stool softener and a cathartic twice a week.

- (h) Why do you think constipation may be a factor?

How would you be sure the patient is not constipated?

What is the effect of her age on this condition?

- (i) Discuss your answers to the questions in Guide 9, "An Infant with Fluid and Electrolyte Imbalance," in the Hymovich workbook.

2. **Complete** the following chart for use now and as a reference with other LEGS. Use the chart as you observe patients this term and next year. Compare their problems, your observations, and your chart.

<i>Imbalance (Where Studied)</i>	<i>Causes</i>	<i>Symptoms or How to Recognize</i>	<i>Corrective Nursing Interventions and Precautions</i>
ECF volume deficit (IV-C), (VII-B) (dehydration)			
Na deficit (VII-B)			
Na excess (VII-B)			
K deficit (VII-B)			
Mg deficit (VII-B)			
The following imbalances will be studied later. You may wish to com- plete the chart now and use it for a reference. ECF volume excess (VII-C) edema			
K excess (IX-C)			
Plasma to interstitial fluid shift (XIII-A)			
Interstitial fluid shift to plasma (XIII-A)			
Ca deficit (XIII-C)			
Ca excess (XIII-C)			
Protein deficit (XIII-C)			

3. **Plan** for a clinical experience. Select at least one of the following activities:

▲ Look for patients with signs of dehydration due to: diarrhea (a child); inadequate fluid intake; postoperative bleeding; nausea, vomiting, and fever.

Visit with these patients during their dehydrated state and/or after the dehydration has been relieved. Were they aware of their condition? What were their particular nursing needs?

▲ Look at these patients' charts. Compare the medical and nursing measures taken to relieve the symptoms. Make notes. What time elapsed between report of symptoms



## FLUID AND ELECTROLYTE ASSESSMENT CHECKLIST

Circle observations that are present in your patient. Add more. Use them in charting on your patients

### *Subjective* (information obtained from the patient)

thirst	present	absent
fatigue	weakness	lethargy
nausea	intermittent	constant
dizzy	poor coordination	
cramps	present	absent
anorexia	present	absent

### *Objective* (information based on a professional observation)

Cerebral dysfunction (behavior)	apathy	restless	disoriented
	belligerent	hallucinations	depressed
	twitching	confused	agitated
	facial spasms	coma	hyperirritable
	plucking at bedsheets	tingling or numb fingers	
BP change	hypertension	hypotension	shock
	postural change of more than 10 systolic (su- pine when seated)		
Pulse change	arrhythmia	bradycardia	tachycardia
Temperature	fever over 100° F		
Respiration	rapid	shallow	cough
	hyperactive	dyspnea	sputum frothy or
	labored	wheezing	pinkish
Intake, output	intake exceeds output	sweating	vomiting
	output exceeds intake		constipation
	diarrhea		
	concentrated urine		
	sugar in urine		
	increased respiration		
Weight change	increase since admission		
	decrease since admission		
	change since previous day		
Fluid collection	edema—pitting, de- pendent, refractory	ascites	
Skin	flushed	turgor poor	eyes sunken
	eyes puffy	cyanosis	odor
	decreased elasticity		moist
	dry		
Mucous membranes	dry	sticky	moist
Tongue	shrunk	moist	breath odor
Neck veins	appear full or less full when lies flat		
Lab findings  (↑ ↓)	serum Na	Hgb	Urinalysis
	serum K	serum Cl	PCO <sub>2</sub>
	PO <sub>2</sub>	HCO <sub>3</sub>	arterial pH
	serum albumin	serum Mg	serum Ca
	EKG		

and instigation of therapy? What were the first symptoms noted? What was the first nursing action? Complete your Fluid and Electrolyte Assessment Checklist.

Look at patient charts for abnormal lab reports of plasma Na, K, Ca if possible.










Read the nurses' notes for signs and symptoms noted. Visit the patient and make notes, afterward, of your own observations.

▲ Care for children with symptoms of fluid and electrolyte imbalances. Chart your observations.

If possible, care for an infant or young child with diarrhea. As you assess his or her condition, be aware that it may change very rapidly. How do you assist the parent(s) in caring for their child?

# OBJECTIVES

## *Acid-Base Imbalances*

-    8. Describe, orally or in writing, how lung function, altered respirations, vomiting, and diarrhea can cause respiratory or metabolic imbalances in the body's buffer system and label each imbalance acidosis or alkalosis. (E)
-    9. Explain, orally or in writing, the difference between respiratory and metabolic acid-base imbalance in terms of which body system causes the imbalance and how the body compensates for the imbalance. (E)
-    10. Describe two patient situations in which you would be alert for signs of increased base bicarbonate (metabolic alkalosis) and two observations that you might chart. (E)

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the terms used in these Objectives. Compare them with common acids (vinegar), bases (soda), neutralizers, buffers, pH. Try to make them everyday terms as you work through some of the following learning experiences. Review LEG VI-C, where you began to learn about respiratory acidosis with COPD and arterial blood gases.

2. **View** audiovisuals.

“Acid-Base Balance” (TR) 1984

“Maintenance and Compensation Systems”

“Patient Assessment”

“Data Analysis”

“Management of Respiratory Acidosis and Alkalosis”

“Management of Metabolic Acidosis and Alkalosis”

“Fluids and Electrolytes” (filmstrip, slides, video, B) 1980

“Metabolic Acidosis and Alkalosis”

“Respiratory Acidosis and Alkalosis”

3. **Read** in medical-surgical, fluid and electrolyte, and pharmacology laboratory tests references about *acid-base balance*, *metabolic*, *respiratory acidosis* and *alkalosis*, and the contributing conditions and resulting symptoms.

Review LEGS VI-B and VI-C for metabolic acidosis, arterial blood gas, and fluid excess.

#### Books

*Diseases*, Horsham PA, Intermed Communications, Inc., 1981, “Homeostatic Imbalance,” p. 891.  
McFarland and Grant, 1982, Chapter 6, “Laboratory Tests of Acid-Base Balance.”

## Programmed

Kee, Joyce L., *Fluids and Electrolytes with Clinical Applications*, 3rd ed., New York, Wiley, 1982, Chapter 3, "Acid-Base Balance and Imbalance," "GI Surgery Situation," pp. 355-372; "Diabetic Acidosis," pp. 477-498.

"Metabolic Acid-Base Disorders" (AJN).

Part I, Chemistry and Physiology (32 pages, 1977).

Part II, Physiological Abnormalities and Nursing Actions (20 pages, 1978).

Part III, Clinical and Laboratory Findings (16 pages, 1978).

Part IV, Understanding Acid-Base Disturbances in Clinical Practice (205 pages, 1978).

### 4. Complete the following:

You will observe \_\_\_\_\_ respirations when the patient has respiratory acidosis.

You will observe \_\_\_\_\_ respirations when the patient has metabolic acidosis.

You will observe \_\_\_\_\_ respirations when the patient has respiratory alkalosis.

Failure to exhale sufficient carbon dioxide causes \_\_\_\_\_.

Vomiting or gastric suctioning may result in a loss of \_\_\_\_\_ ions and cause \_\_\_\_\_.

Diarrhea or intestinal suctioning results in a loss of \_\_\_\_\_ ions and causes \_\_\_\_\_.

List specific nursing care for preventing further imbalance:

1.

2.

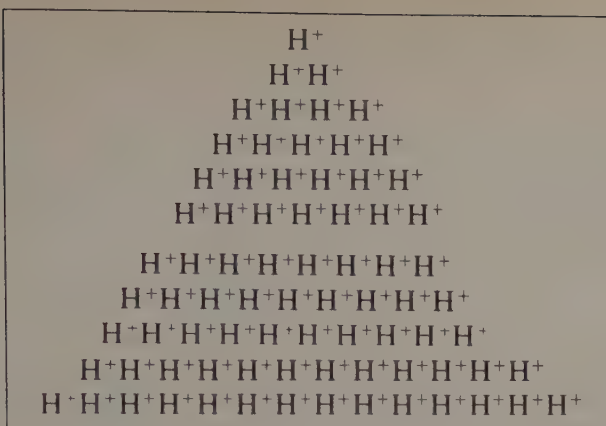
3.

Complete this chart.

	<i>Causes</i>	<i>Symptoms</i>	<i>Nursing Implications</i>
Metabolic acidosis			
Metabolic alkalosis			
Respiratory acidosis			
Respiratory alkalosis			

5. Study the diagram on page 249 as you answer the questions that follow.





pH 14



ALKALOSIS

pH 7.38 to 7.42 normal body fluids

ACIDOSIS



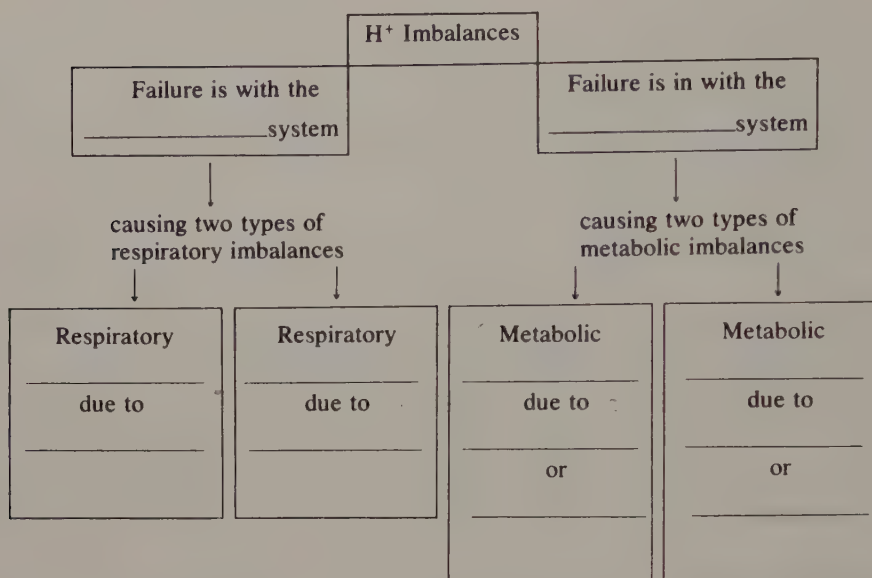
pH 0

- As the H<sup>+</sup> (hydrogen ion) in this solution becomes more concentrated, the pH \_\_\_\_\_ (increases or decreases?), and the solution becomes more \_\_\_\_\_ (acid or alkaline?)
- Our normal body solutions are normally slightly \_\_\_\_\_ (acid or alkaline?)
- Acidosis occurs when there are \_\_\_\_\_ (too few or too many?) H<sup>+</sup> in the blood.
- Alkalosis occurs when there are \_\_\_\_\_ (too few or too many?) H<sup>+</sup> in the blood.

### FACTS ABOUT ACIDOSIS AND ALKALOSIS

- Acidosis is a condition in which the H<sup>+</sup> concentration is elevated above normal or the alkali reserve of the body is reduced below normal.
- Alkalosis is a condition in which the H<sup>+</sup> concentration of the body is decreased below normal or the body base is increased above normal.
- In H<sup>+</sup> imbalance all the major signs and symptoms are the result of disturbances of the central nervous system.  
In acidosis (either respiratory or metabolic), the major problem is depression of the CNS. Decrease in mental capacity, delirium, coma, and death may result.  
In alkalosis, the major problem is overexcitability and tetany results.
- Compensatory mechanisms resulting from H<sup>+</sup> imbalance include the following:
  - The first line of defense is the dilution of H<sup>+</sup> in the ECF and buffering.
  - Second line of defense is the respiratory system.
  - Third line of defense is the renal system.
- If the basic failure is with the *pulmonary system*, the condition is called *respiratory acidosis or alkalosis*. In acidosis, H<sup>+</sup> are being retained within the body fluids as excess carbonic acid. In alkalosis they are being excreted too rapidly in the form of CO<sub>2</sub> and water vapor.
- When the basic failure is *renal* in nature, the imbalance is called *metabolic acidosis or alkalosis*. In acidosis, excessive H<sup>+</sup> are being retained within the body fluids, or bicarbonate is being lost in abnormally large amounts from the kidneys. In alkalosis there is either an abnormal loss of H<sup>+</sup> or an abnormal gain in bicarbonate by the ECF.

6. Complete this chart on the information given in the Facts on page 249.



**Match** the following terms with the imbalances:

Metabolic acidosis \_\_\_\_\_

Metabolic alkalosis \_\_\_\_\_

Respiratory acidosis \_\_\_\_\_

Respiratory alkalosis \_\_\_\_\_

(a) Primary CO<sub>2</sub> excess

(b) Nonrespiratory acidosis

(c) Primary CO<sub>2</sub> deficiency

(d) Hypercapnea

(e) CO<sub>2</sub> retention

(f) Nonrespiratory alkalosis

*[Note: You may want to have all of your blanks and exercises filled in before attending a discussion group. If you have problems finding answers to your questions, request a resource teacher to sit in on these discussions.]*

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

- Attend a small group discussion on "Acid-Base Imbalance." Work through the exercise. Electrolytes are normally found in gastric juice (for example, H, Cl, K, and Na). Imbalances in fluids and electrolytes result with loss of gastric juice.

- (a) What acid is present in gastric juice? \_\_\_\_\_
- (b) Loss of hydrochloric acid results in an increase of the base bicarbonate (BB) as a compensatory measure (metabolic alkalosis). In metabolic alkalosis the plasma pH is \_\_\_\_\_. H and Cl are \_\_\_\_\_. In an effort to compensate for loss of Cl the \_\_\_\_\_ increases. In \_\_\_\_\_, when the carbonic acid is \_\_\_\_\_, the regulatory functions of the body attempt to retain carbon dioxide by \_\_\_\_\_. Other electrolyte and fluid imbalances that may occur along with metabolic alkalosis are decreased \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

Cover the answers

HCL

↑

lost

BB metabolic alkalosis

↓

slow, shallow respirations

ECF, K, Na,

Ca

Explain how the following nursing actions help the patient to overcome metabolic alkalosis.

(a) Discourage oral water intake when on gastric suction. \_\_\_\_\_

(b) Report vomiting early. \_\_\_\_\_

(c) Administer medications for vomiting prn. \_\_\_\_\_

(d) Measure and estimate amounts of vomitus. \_\_\_\_\_

(e) Weigh daily. \_\_\_\_\_

(Record weight upon admission and note comparisons.)

(f) Irrigate nasogastric tube with isotonic solution. \_\_\_\_\_

(g) Measure suction output. \_\_\_\_\_

Which of these nursing actions represent *independent* nursing function?

Discuss how carbon dioxide narcosis can occur if oxygen is given to a patient with respiratory acidosis:

Your patient has just returned to the unit from the recovery room after repair of a hiatus hernia. The order reads:

Morphine sulfate gr  $\frac{1}{6}$  q 4 h prn for pain.

Oxygen at 5 L prn for dyspnea.

(There are other orders, but consider only these at this time.)

How does a hiatus hernia affect respirations? Why? List at least two precautions you would take before giving the morphine and/or oxygen and state why.

Why might you overlook the possible signs of respiratory acidosis for this patient if oxygen is being administered? Relate the policy of turn, cough, and deep breathe to the acid-base imbalance of respiratory acidosis.

Which imbalance does each of the following conditions cause and why? What symptoms are present with each imbalance?

<i>Conditions</i>	<i>Imbalances</i>	<i>Symptoms of Imbalance</i>
1. Uncontrolled diabetes (diabetic acidosis)	a. metabolic acidosis	a.
2. Severe diarrhea	b. metabolic alkalosis	b.
3. Ulcer patient taking antacid medications		
4. Vomiting, gastric suction		

What type of replacement I.V. fluids will each of the above conditions require? Look ahead to Objective 11.

### COMMENTS ON ASSESSING PATIENTS

*Laboratory reports are of great value in diagnosis. However, normals vary for different individuals because of age, body weight, and surface (individual differences!). These are "normal limits" expressed as a range. Therefore, the primary test is how the patient looks, feels, acts: the lab findings may then become confirmatory. This situation places a large burden on the nurse, who must be constantly observant of each patient. Does output about equal intake? Does personality change? How? Why? Are respirations rapid, slow, deep, shallow? Does the patient complain of weakness, tremors, tingling? How is the muscle tone: normal, flaccid, tetanic? What is the characteristic of the pulse? Is the blood pressure stable? All of the questions will guide you in evaluating your patient's fluid and electrolyte balance. The earlier you notice symptoms and REPORT*



*them, the earlier treatment can start. In some instances your own nursing action will be all that is necessary-lucky patient!*

2. **List and describe** as if you were charting the symptoms you see in the following illustration; identify the probable cause (some imbalance) and at least one nursing action you would take. Mark the areas on the figure that indicate problems.



3. **Check out** box of "Laboratory Report Forms." In a small group try to figure out the significance of the reports. Identify acid-base imbalance. State probable signs and symptoms of each patient with a lab report. State what you would look for or do to prevent complications. Speculate as to the cause of the patients' problems.

4. **Plan** for a clinical experience.

- ▲ Observe breathing exercises given to patients. Evaluate the efforts the patient is making. Talk with patients about the exercises they use at home. Talk with respiratory therapists about how to observe for acid-base imbalances.
- ▲ Look at patient charts on your patient unit. Evaluate the charting. Find abnormal laboratory findings indicating fluid and electrolyte imbalances. Visit those patients. Compare what symptoms you see with those described on the chart.
- ▲ Observe and care for patients with acid-base imbalances.

## C. EXTRA ADDED ATTRACTIONS!

1. Fill in the following blanks for acid-base imbalance.

metabolic acidosis—\_\_\_\_\_ base bicarbonate  
 metabolic alkalosis—\_\_\_\_\_ base bicarbonate  
 respiratory acidosis—excess \_\_\_\_\_  
 respiratory alkalosis—deficit \_\_\_\_\_  
 \_\_\_\_\_ base bicarbonate—\_\_\_\_\_ acidosis.  
 \_\_\_\_\_ carbonic acid—\_\_\_\_\_ acidosis.  
 excess \_\_\_\_\_—\_\_\_\_\_ alkalosis.

deficit \_\_\_\_\_ acid—\_\_\_\_\_ alkalosis.

Cover the answers

↓  
 ↑  
 carbonic acid  
 carbonic acid  
 ↓ metabolic  
 ↑ respiratory  
 base bicarbonate,  
 metabolic

carbonic,  
 respiratory

Add an appropriate disease and/or condition to the following spaces:

\_\_\_\_\_—\_\_\_\_\_—metabolic \_\_\_\_\_  
 \_\_\_\_\_—\_\_\_\_\_—respiratory \_\_\_\_\_  
 \_\_\_\_\_—\_\_\_\_\_—metabolic \_\_\_\_\_  
 \_\_\_\_\_—\_\_\_\_\_—respiratory \_\_\_\_\_

vomiting, ↑ base bicarbonate, alkalosis  
 pneumonia, ↑ carbonic acid, acidosis  
 diabetes, ↓ base bicarbonate, acidosis  
 fever, ↓ carbonic acid alkalosis

2. Explain the function of the lungs in regulating fluids and electrolytes:

- Acid-base disturbances are regulated by the action of base bicarbonate and carbonic acid of the medulla. Fill in the blanks below.

Excess of  $H^+$  (ketosis) due to starvation causes \_\_\_\_\_ acidosis, \_\_\_\_\_ in base bicarbonate. To compensate the lungs receive messages from the medulla to exhale \_\_\_\_\_.  
 How is this observed? \_\_\_\_\_.

If there is a loss of  $H^+$  (vomiting), metabolic \_\_\_\_\_ occurs with an increase in \_\_\_\_\_. The lungs in order to compensate must now \_\_\_\_\_ carbon dioxide. How can you tell this action is occurring? \_\_\_\_\_

Cover the answers.

metabolic, ↓  
 carbon  
 dioxide  
 deep rapid respiration

alkalosis  
 base bicarb  
 retain  
 slow, shallow respiration

- The lungs help compensate for metabolic acidosis and alkalosis if they are healthy and receive adequate messages from the brain. If there is a defect in lung function another type of acid-base imbalance can occur!

Inadequate elimination of carbon dioxide causes an excess of carbonic acid that is respiratory \_\_\_\_\_. This can be caused by any blocking of bronchi in lung disease. To compensate for the \_\_\_\_\_ of carbonic acid in \_\_\_\_\_ acidosis, the lungs must increase their effort to exhale \_\_\_\_\_, and the symptoms you can observe, if you observe carefully, and dyspnea out of proportion to effort involved and *hyperpnea* when the patient is at rest. In extreme conditions the  $H^+$  excess in respiratory \_\_\_\_\_ causes loss of K and may lead to ventricular fibrillation and death. Excessive elimination of carbon dioxide caused by hyperventilation due to the anxiety or the body's effort to combat high fever causes a \_\_\_\_\_ in carbonic acid and respiratory \_\_\_\_\_.

acidosis

excess  
respiratory  
carbon dioxide

acidosis


















decrease alkalosis





# OBJECTIVES

## *Parenteral Solutions*

-   11. List one example of a parenteral solution used in your hospital in each of the following classifications: hydrating, alkalinizing, acidifying, and balanced multiple electrolyte (polyionic). State one nursing observation that should be made when administering each. (Your instructor will provide a list of solutions.) 
-   12. Demonstrate how you would use a microdrip set to administer a specified amount of parenteral solution in a given number of hours, and state two observations you would make during the period of administration related to overhydration.
-    13. Demonstrate safely preparing and adding a bottle of I.V. fluids to an existing I.V. infusion including placing a time tape on the bottle, accurately adjusting the rate of flow, and charting on the appropriate records.
-    14. Demonstrate giving daily care to a venipuncture infusion site and state the rationale for all your actions.
-    15. List the observations you would make when your patient's I.V. stops running and state the appropriate nursing actions you would take.
-    16. Demonstrate emptying a drip chamber if it becomes too full.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. Think about what it means when your patient is receiving an I.V. Most patients do have I.V. solutions sometime during their hospital stay. Can you think why? What is the purpose? Or do you just think "fluids, watch for infiltration." There is much more to it. From now on you must know what classification it is and the purpose of each solution. Then you will know what signs and symptoms to look for and will be able to compare them before and afterward.

### 2. View audiovisuals.

"Intravenous Therapy: Part 1, Basic Concepts" (30 min, AJN).

"Intravenous Infusions 1: Flow" (N).

"Intravenous Infusions 2: Procedures" (N): Starting, maintaining and terminating.

"I.V. Therapy" (TR).

"Principles of Intravenous Therapy."

"Preparing Admixtures."

- “Preparing the Administration Set.”
- “Preparing the Patient.”
- “Monitoring the Patient.”
- “Documenting Nursing Care.”
- “Managing Complications.”

3. Read medical-surgical, pharmacology, nutrition, and pediatric references on *parenteral, intravenous therapy*.

#### Books

- Bodinski, 1982, Chapter 23, “Peripheral Vein Intravenous Nutrition,” p. 307; Chapter 5, “Nutrition for the Hospitalized Patient,” p. 58.
- Smith and Duell, 1982, “Administering Intravenous Therapy,” p. 472; Chapter 14, “Alterations in Fluid and Electrolytes,” p. 463.
- Whitson, Betty Jo, and McFarlane, Judith M., *The Pediatric Nursing Skills Manual*, New York, Wiley, 1980, “Intravenous Infusions,” pp. 246–260.

#### Journal

- Keithley, J. K., and Fraulini, K. E., “What’s Behind that I.V. Line?” *Nursing* 82, March, pp. 33–45 (discusses fluid balance disorders, key points about I.V. fluids, nursing assessment guide for use with patients receiving I.V. fluids, and an I.V. reference chart).

#### Programmed

- “Intravenous Therapy” (AJN), 1979.
- Kee, Joyce L., *Fluids and Electrolytes with Clinical Applications*, 3rd ed., New York, Wiley, 1982, Chapter 4, “Parenteral Therapy.”

4. Write your answers to most of the following questions before attending a group discussion:

(a) Fill in this chart.

<i>Classifications (Definitions)</i>	<i>Name of I.V. Solutions (Common in Your Area)</i>	<i>Tonicity</i>	<i>Nursing Observations and Precautions</i>
Hydrating			
Alkalinizing			
Acidifying			
Polyionic (balanced multiple electrolyte)			

(b) List the names of some oral electrolyte solutions used in your hospital.

(c) How is the daily maintenance requirement of parenteral solutions calculated for pediatric patients? For adults?

Where is the preferred vein for administering I.V. fluids in adults? \_\_\_\_\_ Children? \_\_\_\_\_

What observation should you always make before administering I.V. fluid containing potassium? \_\_\_\_\_

What factors determine the rate at which an I.V. fluid can be administered? \_\_\_\_

(d) What solutions would expand the extracellular space?

What solutions would move into the cells from the ECS?

(e) What is meant by replacement versus maintenance fluids?

What is the difference in isotonic and balanced solutions?

How many calories are in a bottle of 5% D/NS?

(f) If a patient gets three bottles a day (3,000 cc), what purpose do these calories serve?

What is the significance of starvation ketosis?

(g) What is the significance of tonicity (osmotic pressure)?

(h) If your patient has a fever or an infection, is the need for calories greater or less?

Explain.

(i) When patients are receiving KCl I.V., what is the most significant assessment for the nurse to make?

5. **Attend** a group discussion on "The Nurse's Role in Hospital Malnutrition." Use a dietitian as a resource person and a reference such as Bodinski (p. 59) as you discuss what can be done to prevent this condition. Be sure that you list specific steps to take and discuss ways to make these steps possible.

Consider the nurse's obligation to the patient who can take oral fluids but who is on I.V. fluids. How do you react to the statement: "... consider orders for intravenous feedings as a reflection of nursing care for patients who are capable of oral intake" (Bodinski, p. 60)?

How can you become more insistent, imaginative, persuasive, and successful in promoting adequate fluid intake?

## PROBLEMS FOR SOLVING

What mechanical factors, which you can check, influence the flow of intravenous fluids? How can the rate of flow increase or decrease, without adjusting the flowmeter?

Why is it important that an I.V. flow rate be slower for a patient who is 81 than for a patient who is 41? For a child of 3-8 years than for a young adult?



## B. PUTTING IT INTO ACTION!

1. **Attend** a group discussion on "More on Fluids and Electrolytes—Parenteral Solutions." Bring your completed Guide 9 from your Hymovich workbook (or, at least, completed as far as you were able to find answers).

Examine a microdrip I.V. set and discuss how you would use it to administer the fluids to Juanita, age 2½, in Guide 9, Luis, age 5, described below.

What observations would be made when administering their fluids? How would each child be restrained? Which child could most easily become overhydrated? Why?

What fluid and electrolyte imbalance can occur with each situation and why? What signs and symptoms are present?

3/25 Luis—3-yr-old admitted to peds from ER at 11 P.M. c̄ dx of dehydration 2° to vomiting.

TPR 101-146-36, R deep, rapid c̄ aromatic smell on breath.

Ht.—39½", Wt.—30½ lb.

Parents state: Vomiting qh this P.M. Vomiting for past 2 d. No diarrhea.

Immunizations are up-to-date. No exposure to communicable disease.

Speaks Spanish only.

Observations: Pale, warm, lethargic, occasional crying s̄ tears, lips slightly dry.

Throat not inflamed, skin turgor good

3/25 11-Admitted.

Dr. orders: Lab work: Bicarb, SGOT, glucose, BUN, S electrolytes, S ammonia now.



NPO except ice chips.

VS q4h.

500 cc D-5-0.45 NS 90 cc/h for 8 h, then 70 cc/h.

Add KCl 2mEq each 100 cc.

Ampicillin 300 mg I.V. q4h.

Repeat S electrolytes in A.M.

3/26 10 A.M. D-5-0 2 NS  $\bar{c}$  KCl 2 mEq/100 cc I.V. at 70 cc/h.

2 P.M. Sips 7-Up prn.

Notes Made by Nurses While Caring for Luis

11—Looks scared, crying. Mother left. Translator here to talk with child.

Blood work done. I.V. started R forearm  $\bar{c}$  20 g angio. Voided 150 cc

Skin warm, dry; moist mucous membranes. Water refused. 4 A.M. TPR 98-110-20.

6—No stools, urine. Slept all night. Awake now. Mother here. TPR 97<sup>s</sup>-120-20. Blood drawn.

7 — Color ok. No fluids til 3 P.M., then sips 7-Up.

10 - I.V. rate decreased. Slept 10-12. Ampicillin 8, 12.

11 - Up to BR, voided 300 cc. Bathed. TPR 98-114-20.

4 - Awake, assessment—same except more playful. TPR 98-112-20. Voided 350 cc. Sips 7-Up. TPR 98-112-20. Ampicillin at 4.













## 2. Plan for clinical experiences.

- ▲ Observe patients receiving I.V. therapy. Read their charts. What symptoms are recorded? How do they tolerate the therapy? What observations do you make? Talk with patients. How do they feel about I.V. therapy? How is their I.V. intake recorded?
- ▲ Give daily care to a venous infusion site following your hospital's procedure.
- ▲ Change or observe a nurse changing I.V. solutions. Be sure you can accurately record the fluid received, new solutions started, and keep hourly records on the time tape on the bottle.
- ▲ Observe infusion monitors or pumps such as an IVAC and learn how to operate them.



## OBJECTIVES

### *Gastric and Intestinal Tubes and Feedings*

-    17. Given an order to assist with insertion of gastrointestinal tube, state or demonstrate the purpose of the intubation, the appearance of the tube, the procedure for insertion, preparation of the patient before intubation, and follow-up nursing care, including observations, use of intermittent suction, and removal of the tube.
-    18. Given patients or pictures of patients with gastrointestinal tubes with lumen labeled according to purpose (e.g., suction, balloon), describe how each lumen can be handled (e.g., can it be irrigated?).
-    19. Demonstrate giving an enteral feeding via a gastrostomy or jejunostomy tube after writing out a list of the steps you will take to insure the safety and comfort of the patient prior to, during, and following the feeding.
-    20. Demonstrate inserting a nasogastric tube, taking specific steps to provide for the patient's comfort and checking the location by two different means.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** what a gastric or an intestinal tube means to a person. Usually a serious problem, either internal bleeding or an obstruction. It is uncomfortable to the patient and repulsive and frightening to the family. You can do much to alleviate these feelings by your attitude, presence, and skill. Learn these nursing measures well and remember you are caring for the patient, not the tube!

2. **Read** in medical-surgical, pediatric, and geriatric nursing references about *intestinal tubes, gastric tubes, enteral feedings*.

Review special mouth care in LEG II-A.

Review inserting a nasogastric tube, irrigation and tube feeding in LEG IV-C.

#### **Book**

Smith and Duell, 1982, "Enteral Feedings," pp. 539–542; "Inserting a Levin Tube," pp. 526–527; "Inserting a Miller Abbott Tube," pp. 454–457.

3. **View** audiovisual.

"Enteral Hyperalimentation: Techniques of Intubation—Prevention and Treatment of Complications" (15 min, EL), 1974.

"Nasal Intubation for Enteral Feeding" (20 min, RS), 1981.

"Nasogastric Intubation," Part I (TR).

As you view the filmstrip, jot down any questions you may have about problems you might run into during intubation to use in the group discussion.

"Gastric and Gastrointestinal Decompression" (TR).

"Principles of Enteral Tube Feeding" (RS), 1982.

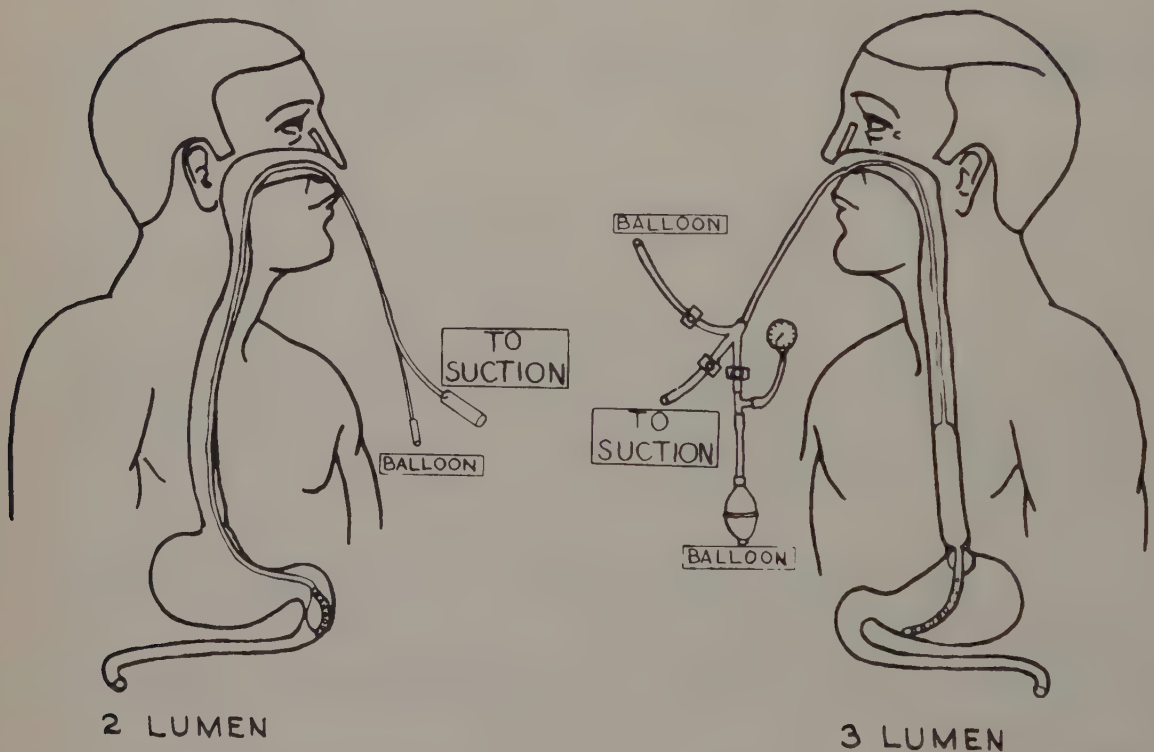
Part 1: "Nutrient Needs and Formula Selection" (17 min).

Part 2: "Administration and Monitoring" (14 min).

Part 3: "Metabolic Monitoring" (14 min).

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Look at the illustrations below. Write what you can do with each of the lumen labeled on the figures below.



*[Note: Sengstaken-Blakemore tubes may rarely be used in your area. However, they are stocked in most emergency rooms and are still important for gastric and esophageal bleeding. Therefore, we believe you should know what they are and how to use them.]*

When do you apply tape to the nostril to hold the tube in position for the nasogastric tube? The gastrointestinal tube? Why?



## COMMENTS ON TAPING NG TUBES

*You will see a variety of "taped noses." To better understand the need for careful positioning and taping of nasogastric tubes, wear one around awhile. Cut off a piece of plastic tubing 3 to 5 inches long; insert it into your own nostril and tape it in place. Wear it for 15 minutes, half an hour, an hour. How did it feel? What did you see as you looked down your nose?*

*Look at the following illustrations for ideas on anchoring the tubing for best function of the tube and most comfort for the patient.*



*Try these methods. Try some of your own. Above all take time to apply the least amount of the best kind of tape (e.g., paper or plastic) in the correct position! It takes practice.*

### 2. Write the steps you would take to carry out the following medical treatments:

"Insert Miller-Abbott Tube and advance 1 in. qh."

"Intubate for intestinal decompression."

"Give jejunostomy tube feeding."

"Irrigate Salem Sump tube."

"Clamp ng tube for 2h, then open for 1h."

Where do you find out what equipment the physician will need? Does the unit procedure book give you as much information as you need? How do you prepare to assist the physician? What do you need to do to prepare your patient?

Why does the formula for a gastrostomy tube feeding differ from one given via a jejunostomy tube? How?

### 3. Write a nursing care plan for the three patients on page 266. You are to give routine morning care and irrigate the tubes. For practice, try to figure out what type of drainage tube each patient has in place and what electrolytes are lost via the drainage. In actual practice you would know the name of the tube (for instance, Cantor, Blakemore).

Mrs. Jane Jackson is assigned to your care. She is 34 and is hospitalized for observation. She is awake as you enter her room, and you note that the tube coming from her nose has a metal adapter and two lumen.

Mr. Marshall Miller, age 48, has been hospitalized for conservative care of bleeding in the upper gastrointestinal tract. You notice that his tube has three lumen.

Georgie Gevens, age 7, has a tube connected to continuous suction because of peritonitis due to ruptured appendix.

Which opening is which and for what? How can you tell? When in doubt which would you irrigate? **YOU'D BETTER ASK AND/OR BE SURE BEFORE IRRIGATING!**

**4. Attend** a practice session in campus lab on "Nasogastric Intubation and Delaying Tactics." Bring with you to the discussion:

Your definition (you may use the dictionary) of the term, "delaying tactics."  
Five examples of delaying tactics, preferably your own!

Discuss how to overcome the need for using "delaying tactics."

- Role play using "delaying tactics" as you prepare to insert or assist with insertion of a nasogastric tube (one nurse, one patient).  
How does the patient react to the delay? More or less anxious? What does the delay do for you, the nurse? Role play an overly quick approach to the nursing action. What effect does this have on the anxiety of the patient and the nurse?
- List *all* the things that can go wrong as you insert a nasogastric tube (use an available chalk board or add a sheet to this LEG): *Example:* Tube gets "stuck" in the nostril. Across from the "happenings" write the possible causes and what can be done to correct or change the problem. As you think about this procedure, what are *you* really afraid of? When you cannot think of any more possible hazards, stop and look at the list. You have now crossed all the "bridges" before actually approaching a patient. Nothing more can happen (if you have been complete with your listing).
- Role play insertion of a nasogastric tube on "Mrs. Chase" or another model. What problems arise? How does slanting the tube or rotating it help as you begin insertion? Look into the nostril. See a deviated septum? If so, what will you do? What if, after you get the tube into the stomach, you test it and nothing comes back? What will you do? What could have happened? How will the procedure differ with a child, an infant?

Review the filmstrip on "Nasogastric Intubation," Part I (TR). Look at it from the approach of "What can go wrong?" Check your list with those mentioned and shown. Compare your solutions with those on the filmstrip.

By now you must be all ready to insert a nasogastric tube. Your problems have been solved, and you know how to handle a "happening." Go to it and compare your successes afterward.

5. Compare the following types of enteral feedings.

	<i>Nasogastric Tube</i>	<i>Needle Catheter Jenunostomy Tube</i>	<i>Gastrostomy Tube</i>
Location of tube			
Assessments to make prior to feeding			
Actions needed to administer feeding			
Follow-up assessments and actions			

6. Plan for clinical experiences.

- ▲ Go to several patient units. Find out how to get information about the various decompression tubes. Look in the Kardex and in the procedure book.
- ▲ Give an enteral feeding after writing out the steps you will take and discussing it with your instructor.
- ▲ Insert or assist in inserting a nasogastric tube, gastric and intestinal tubes.
- ▲ Observe patients with a variety of gastric or intestinal tubes, some connected to suction, some used for gavage. Look for intestinal decompression tubes with more than one lumen.
  - Talk with patients about their reactions to intubation, feelings with suction; feelings of thirst; mouth care.
- ▲ Observe removal of decompression tubes. Is this a fast or slow process? Why?
- ▲ Give special mouth care to patients with nasogastric tubes. Observe the condition of their skin and nares around the tube and tape. How can you make this more comfortable? Irrigate and/or check tubes for patency. Describe the drainage. Read the output records during the periods of time the tubes have been in place. Which of the patients' electrolytes needed to be replaced? How was it done?





# LEG VII-B

## Fluid and Electrolyte Balance During Illness

### HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VII-B are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the “doing” Objectives. Use a separate sheet of paper for these answers and then use the answers in clinical or campus lab for your own evaluation.

#### *Objectives*

#### *Questions*

- 1                      1. Write a brief statement that describes how each of the following help maintain the fluid and electrolyte balance within our bodies.  
                              semipermeable membranes  
                              plasma proteins  
                              kidneys  
                              gastrointestinal tract  
                              nervous system  
                              hormones  
                              electrolytes
- 2                      2. During the flu season, three members of the Jones family developed the flu with symptoms of vomiting and diarrhea for three days. After two days it was necessary to hospitalize both the 11-month-old Jones baby and the grandmother. The father was ill but did not develop a severe dehydration. Why did two become dehydrated and not the third?
- 3                      3. You are caring for patients with dehydration related to one of the following causes. State two specific nursing actions for each.  
                              diarrhea  
                              inadequate fluid intake  
                              postoperative bleeding  
                              nausea and vomiting
- 4                      4. Take your Fluid and Electrolyte Assessment Checklist to the clinical area and use it to observe one patient with an imbalance problem. Study his or her chart, and at the end of your experience list three independent nursing actions that would assist this patient to regain a normal fluid and electrolyte balance.  
                              Ask another student to observe the same patient and complete the above. Then compare your observations and ideas.

- 5                    5. Your clinical assignment is to care for a patient with ulcerative colitis who has been admitted with frequent loose stools and skin breakdown. The evening before your lab, you review this health problem and discover that the diarrhea could cause the following three fluid and electrolyte imbalances. Write down two observations you will be looking for related to each imbalance as you care for the patient tomorrow.

increased sodium:

decreased potassium:

decreased magnesium:

- 5                    6. Describe one patient with Na loss. Include the cause and at least three symptoms.

- 6                    7. State two nursing actions specific for alleviating the symptoms of nausea and vomiting due to:

drug allergy

intestinal obstruction

vertigo or postsurgery

Describe why vomiting probably occurred.

- 7                    8. Identify one specific problem for each of the persons described below and list the steps of the nursing process you would take to solve *one* of the problems. Bring your answers to a GES.

A young woman who is a secretary to a busy young vice-president has frequent watery stools.

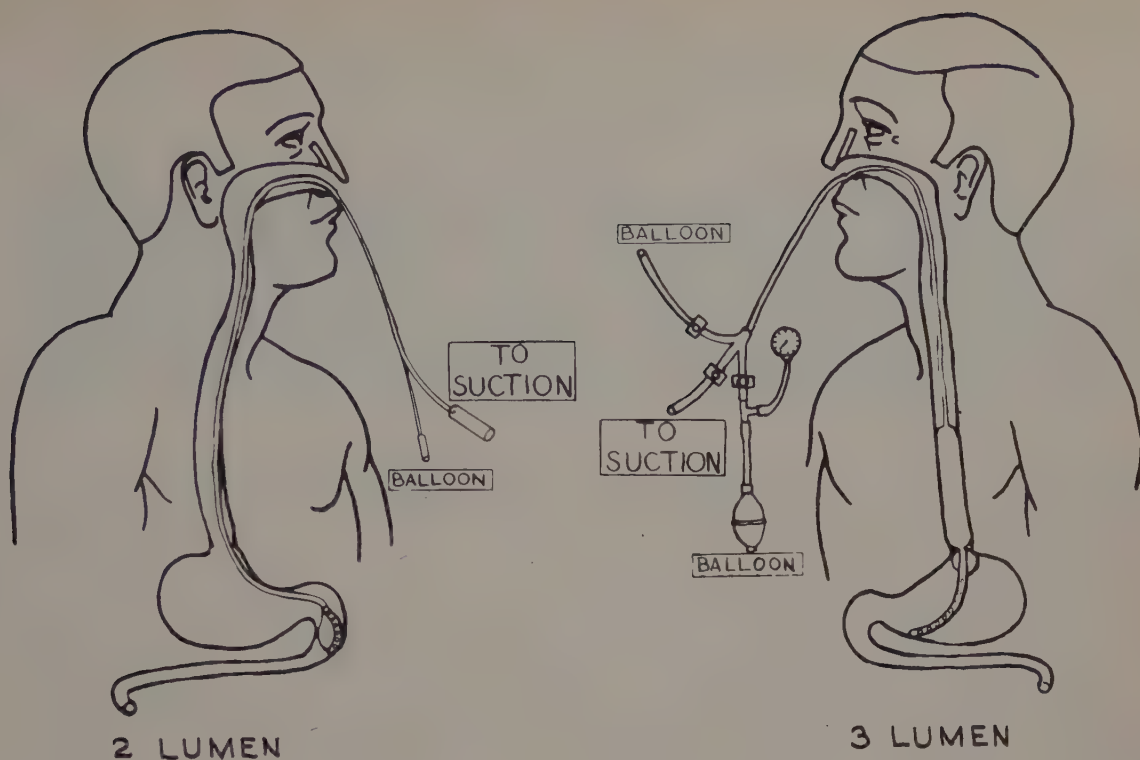
An infant has had diarrhea for two days.

A patient receiving the drug Decholin calls to say she has had diarrhea for "three days and it's getting worse." You are the office nurse.

- 8                    9. Describe how lung function, vomiting, and diarrhea can cause respiratory and metabolic acidosis or alkalosis.
- 9                    10. Which body system is primarily involved in allowing respiratory acid-base imbalance to occur? \_\_\_\_\_  
Which system fails when a metabolic imbalance occurs? \_\_\_\_\_  
When an imbalance occurs, what systems work to compensate for the imbalance? List three.
- (a)
- (b)
- (c)
- 10                   11. Describe two patient situations when metabolic alkalosis might occur.
- 10                   12. List two observations that you would be looking for when caring for the patients you described in Question 11.
- 11                   13. Name one parenteral solution in each of the following categories and describe one nursing precaution or observation you would make when administering it.
- (a) hydrating
- (b) alkalinizing
- (c) acidifying
- (d) polyionic (balanced)
- 12                   14. Check out a microdrip set. Explain to another student how you would use the set. Assume that you are to give a 5% D/0.2 NS solution to a young child. The doctor orders 500 cc to be given in a 6hr period.
- What would the flow rate be? How many cc/s should the child receive each hour? \_\_\_\_\_  
List two observations you would make to prevent overhydrating the child.

- 13            15. You are asked to add the bottle of I.V. solution that is sitting in the room to the infusion your patient is receiving when the present bottle runs dry. There is about 100 cc left in the present bottle. Which of the following actions would you take and why:
- (a) Unseal the new bottle and leave it ready on the bedside table.
  - (b) Wait until the bottle and drip chamber are empty before adding the new bottle.
  - (c) Readjust the clamp so the solution runs in faster and you can change it before you leave the room.
  - (d) Check the physician's order and fluid intake sheet to see what type of solution the patient should be receiving next.
- 14            16. You are expected to give care to the infusion site of your patient today during morning care. Which of the following is the best reason for giving daily care?
- (a) The I.V. tubing needs to be changed daily.
  - (b) To observe for infection, inflammation, or edema.
  - (c) To check for blood clots in the catheter.
  - (d) To adjust the flow rate every 24 hours.
- 15            17. List six observations that would be related to failure of an I.V. infusion to run.
- 15            18. Select one of your observations and state what actions you would take to solve the problem.
- 16            19. Your patient's I.V. drip chamber becomes so full you can no longer count the drops. Which of the following would be the best action for you to take?
- (a) Pinch the tubing below the drip chamber, turn the bottle upside down, and squirt some of the fluid back up into the bottle.
  - (b) Take the drip chamber out of the bottle and squirt some of the fluid into the wastebasket.
  - (c) Take the drip chamber out of the bottle and hold it up until the level of fluid runs down.
  - (d) Squeeze the drip chamber to force some of the fluid back up into the bottle.
- 18            20. Describe what each of the labels on the intestinal tubes in the figure on page 273 indicate and the purpose of each lumen.
- 17, 19, 20    21. Be prepared to demonstrate any of the following. Bring a list of the steps you will take and be prepared to answer questions regarding assessments, safety, and comfort of the patient and purpose of the procedure.
- (a) Insert a nasogastric tube.
  - (b) Remove a nasogastric tube.





- (c) Assist with insertion of a Miller-Abbott tube.
- (d) Assist with removal of a Miller-Abbott tube.
- (e) Give a gastrostomy tube feeding.
- (f) Give a jejunostomy tube feeding.



## LEG VII-C

### Cardiac and Hypertensive Problems

# WHAT WILL I LEARN?

In LEG VI-C you learned about patients with problems of getting oxygen into their lungs and ridding their bodies of carbon dioxide. In following the pathway of the oxygen molecules, you will see that they join the hemoglobin in the red blood cells and travel through the pulmonary vein directly into the heart where they are then quite forcefully expelled into the body's vast network of arteries, arterioles, and capillaries. This is a simple enough process that can be traced on a drawing, yet it is so complex that failure of one of the parts along the way will throw the rest of the body into "emergency measures." It is these **regulatory measures** (for example, rapid pulse rate, pooling of fluid in ankles, chest pain, cyanosis) that tell the patient and his or her doctor and nurse that something has gone wrong and that the rest of the system is compensating (regulatory function) to carry the load until the defect can be corrected. These are the signs and symptoms, along with diagnostic tests, that will tell the doctor if the oxygen is getting through, how much permanent damage has occurred to the body, and how long it will be until the system will return to normal operation. It is a frightening prospect to have something go wrong with such a vital **body system**.

Patients with heart disease offer you the opportunity to perfect general nursing skills, to become familiar with common signs and symptoms, and to recognize and accept attitudes of patients with chronic disease. You have time now to "put it all together"—all you have learned up to this point in Levels One through Six to give total patient care.

The **Content of the Objectives** for LEG VII-C is:

Causes of Alterations in Cardiac Functioning (1-3)

Diagnostic Tests and Nursing Assessment (4-7)

Diet Therapy for the Cardiac Patient (8, 9)

Rationales for Medical and Nursing Care (10-14)

Basic Needs of a Patient Following a Myocardial Infarction (15-19)

Acute Care Requirements Due to Fluid Excess (20, 21)

Your goal in this LEG will be to prepare yourself to accept these patients as they are and help them cope with their **crises**. Some will face severe changes in their self-image. A few will face the greatest loss of all—their impending death and with it the loss of their feelings of immortality.

Rarely will you see a patient in the acute phase of heart disease if your hospital has a CCU. This LEG will introduce you to nursing care of patients with cardiovascular problems and offer you the opportunity to study without the pressure of lifesaving techniques used in CCU.

## WHAT'S AHEAD IN LATER LEGS

LEG XI-C—*care for patients in the acute phase of cardiac illness.*

LEG XII-C—*the nursing care of patients requiring cardiovascular surgery.*



## OVERVIEW OF LEARNING EXPERIENCES IN LEG VII-C

<i>Objectives</i>	<i>Campus Lab Practice</i>	<i>Group Discussions/Lecture</i>	<i>Clinical Lab Focuses</i>
1. Life-styles leading to cardiac dysfunction 2. 3. Pathophysiology, causes, and symptoms of heart problems		<b>B3.</b> Physiologic changes in heart disease	<b>B4.</b> Review charts of adults and children Look for recorded symptoms of heart problems or risk factors
4. 5. Diagnostic tests (H) 6. 7. Physical assessment and apical-radial pulse	<b>B3.</b> Apical-radial pulse; physical assessment	<b>B2.</b> Situations needing CPR	<b>B4.</b> Study diagnostic tests of cardiac patients Attend a code; observe team Do physical assessment; count radial pulse
8. 9. Diet therapy: sodium restricted and fat controlled		<b>B1.</b> Talk with dietitian	<b>B2.</b> Examine diets; talk with patients
10. 11. Rationales for medical orders and nursing goals 12. Pharmacology 13. Discharge planning for hypertensive patient (H) 14. Community resources		<b>B3.</b> Teaching the patient with increased BP GES Objective 13	<b>B6.</b> Care for a patient with signs of heart failure Write a NCP Change occupied bed from top to bottom Weigh patients Talk with patients with hypertension; assess learning needs Observe heparin injections being given Talk with a pharmacist about drug interactions
15. Meeting basic needs of a convalescing MI patient 16. Effects of stress 17. Approaches to the uncooperative patient 18. 19. Assessing tolerance to activity	<b>B1.</b> Getting a post-MI patient out of bed	<b>B4.</b> Needs of the patient convalescing from an MI	<b>B5.</b> Care for patients post-MI; write a NCP Give cardiac medications Visit cardiac rehabilitation department Look at lab work
20. Problems due to excess fluid 21. Planning nursing care for patients with acute CHF (H)	<b>B2.</b> Practice drawing up emergency medications	<b>B1.</b> Caring for patients with potential fluid excess GES Objective 21	<b>B3.</b> Care for patients with CHF; Observe for fluid excess Examine emergency medications Observe and assist with rotating tourniquets

# NEW TERMS AND ABBREVIATIONS

aerobic exercise	clubbed fingers	patent ductus arteriosus
angina pectoris	coronary artery disease	prothrombin time (protime)
angiocardiography	coronary occlusion	pulmonary edema
apical-radial pulse	cor pulmonale	sedimentation rate (sedrate)
arrhythmia	digitalizing dose	serum transaminase (SGOT)
arteriosclerosis	echocardiogram	stress testing
atherosclerosis	electrocardiogram (EKG, ECG)	tetrology of Fallot
cardiac catheterization	embolism	thrombosis
cardiac output	ischemia	valves
cardiovascular	lipoproteins	
chemoreceptors	paroxysmal nocturnal dyspnea (PND)	
cholesterol		

# OBJECTIVES

## *Causes of Alterations in Cardiac Functioning*



1. Describe three life-styles that can lead to alterations in cardiac functioning.



2. Explain the physiological disturbance leading to and occurring in left heart failure, right heart failure, angina pectoris, and myocardial infarction, and list two signs and symptoms for each disturbance.



3. List one possible cause and two symptoms of chronic heart problems including: hypertension, congenital heart defects, and rheumatic heart disease.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** heart disease, the number-one killer. What do you know about the structure and function of the heart and blood vessels? How does this body system work with other body systems to keep a person well? What signs and symptoms can you recognize to direct your nursing care of the patient with cardiovascular problems to provide comfort, support, and encouragement.

Knowing the anatomy and physiology of the heart and circulatory system as it relates to heart disease (not peripheral vascular disease) is your responsibility as you study this LEG. You may have had a human anatomy and physiology course several months or years ago, or you may be taking the course now and be either just beginning or will begin to study the heart and blood vessels. Whatever your situation, you must learn the parts and general functions of each.

2. **Review** the anatomy and physiology of the heart and circulatory system.

3. **View** audiovisuals.

"Heart and Circulatory System" (16 min, UMTV, UMC, EMC), 1975.

"Development of the Heart" (35 min, SQ), 1958.

"Coronary Heart Disease Angiography" (20 min, SQ).

"The Heart: Attack" (27 min, MHUSP) 1972.

"The Heart: Counterattack" (30 min, MHUSP, UIL) 1972.

"The Heart: An Inside Story" (12 min, UIL), 1976.

"Heart Attack: Prevention" (20 min, USC), 1979.

"Silent Countdown" (27 min, MSD): High blood pressure.

"High Blood Pressure—If Only It Hurts a Little" (24 min, MSD).

"Feeling Fine" (28 min, MSD): Living with high blood pressure as we grow older.

"Hypertension—A Delicate Balance" (10 min, GSA), 1976.

"Cardiovascular Disease: Strokes" (CHF), 1983.

“Heart of the Matter” (60 min, FI).

“Angina Pectoris, Parts 1, 2, 3,” (22, 23, 29 min, GSA), 1969.

“Why Risk a Heart Attack?” (14 min, TLV).

“For the Sake of Your Heart,” Part 1, The Normal Heart; Part 2, Heart Disease; Part 3, Helping Your Heart to Stay Healthy (HRM).

“How to Lose Weight,” Part 1, It’s Your Body; Part 2, Achieving Weight Control (HRM).

“What Is Your Health Hazard Risk?” Part 1, Physical Fitness and Stress; Part 2, Your Nutrition Profile; Part 3, Your Life Style Profile (HRM).

“Nutrition and Exercise,” Part 1, Nutritional Myths and Facts; Part 2, Sports Nutrition (HRM).

4. Read in medical, surgical, and pediatric references about *cardiovascular problems*. (See Objective’s for list of specific diseases.)

#### Books

Hymovich, 1982, Guide 20, “Timmy Tyler’s Heart Defect Is Repaired,” p. 218; Part I, “Development and Function of the Heart,” and supplementary diagrams, pp. 236–239 (for each diagram identify and label defects using arrows to show blood flow).

Smith, and Duell, 1982, Chapter 17, “Alterations in Circulation,” p. 623.

#### Other

High Blood Pressure Information Center, 120–80 National Institute of Health, DHEW, 9000 Rockville Pike, Bethesda, Maryland 20014. (Write for information on hypertension.)

- As you read, list the common signs and symptoms for the diseases listed:

5. Review signs and symptoms of lack of oxygen in the body from LEG VI-C. List two or more signs of hypoxemia in the patients described below:

Mr. Rawlins is a 44-year-old man, hospitalized for the third time in the past two years with a “heart attack” better known medically as a MI, a myocardial infarction. He was hospitalized this time because he was experiencing severe “crushing” pain in his chest radiating down his left arm. Mr. Rawlins’ doctor told him that each succeeding attack leaves further scar tissue on the heart, and prolonged rest and care is indicated. Because of his previous attacks, Mr. Rawlins is extremely apprehensive and discouraged because he foresees another period of six to eight weeks of hospitalization and rest at home. On admission his BP was 80/60; pulse rapid and weak; color ashen; and skin cold and clammy. He was immediately placed in a Coronary Care Unit.

Mrs. Campbell is a 35-year-old housewife with a history of rheumatic heart disease at the age of 15. She noticed that recently she tired easily in doing her own housework, that she was short of breath in going up and down stairs, and that she was increasingly irritable with her husband and children. She also noticed that at the end of the day there was some swelling of her feet and ankles.

She had been told after her bout with rheumatic heart disease that she might have to restrict her activities, and she had experienced all these things previously, so that she



did not consult her doctor even though these symptoms were lasting much longer than before. One night after an especially hard day of housework she awoke unable to catch her breath, gasping and choking. She woke her husband, who called the doctor. The doctor recommended that she go immediately to the hospital.

**6. Write answers to the following questions as you read or review the structure and function of the normal heart.**

- (a) Describe the heart, including tissue, size, purpose, and location.
- (b) Which of the four heart chambers is usually the largest and most heavily muscled?
- (c) Describe what happens to the blood from the time the left ventricle contracts until it returns ready for another contraction: include in your description the following terms: aorta, right atrium, venae cavae, right ventricle, pulmonary artery, pulmonary veins, left atrium, oxygen, nutrients, carbon dioxide, coronary arteries.
- (d) How does pulmonary circulation differ from circulation to other parts of the body?
- (e) What do the valves do for this pumping system?
- (f) Describe the control system to maintain a regular beat.
- (g) How can you tell what is the minimum amount of pressure exerted by the blood against the walls of the arteries?
- (h) How can you gauge the elasticity of the blood vessel walls?
- (i) How can the heart be adversely affected by our chosen life-styles? Describe your life-style including your pattern of activity and rest, exercise, diet, level of stress, and whether or not you choose to smoke. (Don't forget to include your own genetic factor.)
- (j) Why does disease in a blood vessel or heart valve affect the rest of the body? Explain the physiologic changes that occur with coronary artery disease (angina or myocardial infarction) and rheumatic heart disease. How can these changes lead to heart failure?
- (k) List symptoms of infants that could indicate congenital heart defects. How do these symptoms differ from symptoms of adults in heart failure?
- (l) Why do patients with COPD develop heart failure? Which side of the heart is affected? What symptoms appear?
- (m) List five of the most common congenital heart defects: Indicate whether each is a cyanotic or an acyanotic defect.

1.

2.

3.

4.

5.

Be prepared to discuss the answers to the questions above in relation to nursing care; for example, location of the heart and taking apical pulse, heartbeat and drugs, function of the heart and blood vessels, and your nursing observations for later Objectives.

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

1. **Obtain** a copy of "Heart Drawings" from your local heart association and insert here. Draw in the changes that occur with each of the following conditions: MI, angina pectoris, CHF (left and right sides), rheumatic fever, tetralogy of Fallot.

2. **Explain** to another person the difference between an MI, angina, and CHF. Have them ask questions and ask for clarification until it is quite clearly understood by both of you. Having an explanation challenged will stimulate you to seek more information on a subject that you don't really understand and that you have simply memorized from a book.

3. **Attend** a small group discussion on "Physiological Changes in Heart Disease."

- Compare MI, angina, and CHF. Look at the changes in the heart and blood vessels. Describe the pain experience and how pain is relieved. Explain the relationship of obesity and hypertension to heart disease.
- Discuss how life-styles contribute to or prevent heart disease. What is meant by Type A behavior? What is the acceptable systolic and diastolic levels of blood pressure for different age groups?
- Discuss the answers to the questions in A-5 and A-6.
- Role play and discuss the following situations:

*[The student assuming the patient's role in the first situation should take a few moments to try to feel and imagine what the patient's fears and questions might be as well as his or her blocks to learning and changing.]*

Nurse explaining to a 55-year-old obese woman with a BP of 180/126 about the relationship between heart disease, obesity, and hypertension.

Woman telling her neighbor about the dietitian she heard speaking at her women's club about the "Why's and How's of Reducing Cholesterol in the Diet."

Wife explaining to her husband how and why he should reduce the stress and anxiety related to his job.

4. **Plan** for a clinical experience.

- ▲ Review charts of adults and children who have been diagnosed as having cardiac problems. Look for recorded symptoms of heart problems or risk factors.

# OBJECTIVES

## *Diagnostic Tests and Nursing Assessment*



4. Given any of the following lab reports (including their normal values), state whether the result is normal or abnormal for a patient having experienced a myocardial infarction and the purpose of each test: serum triglycerides, WBC, sedimentation rate, prothrombin time, clotting time, partial thromboplastin time (PTT), enzymes (CPK, LDH, SGOT).



5. Given a list of descriptions, select the ones that best describe an electrocardiogram and an echocardiogram to a patient.



6. Demonstrate making a systematic physical assessment of a patient with impaired cardiac output.



7. Demonstrate accurately counting an apical-radial pulse with another student for one minute.

### A WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the physiologic changes you studied with the last Objectives. The physiologic status of cardiac patients changes continually and must be assessed daily by an alert, knowledgeable nurse. You can use your new skills in listening to lung sounds from LEG VI-C. The diagnostic tests give the physician much important information, but your observations may be even more important in evaluating a patient's progress or detecting deterioration in his or her condition.

### 2. **View** audiovisuals.

"Cardiac Auscultation: 1. The Normal Heart" (LP).

"Physical Examination: Cardiovascular: Peripheral Vascular System" (LP).

"Health Assessment—Heart," Module 6 (B), 1983.

"Atherosclerosis" (GSA), 1978.

"Atherosclerosis and Coronary Heart Disease" (GSA), 1975.

"Physical Assessment: Initial Assessment of the Heart" (CM).

"Physical Assessment: Inspection and Palpation of the Anterior Chest" (CM).

"Physical Assessment: Auscultation of Heart Sounds" (CM).

"Nursing Care of Children With Cardiovascular Problems: Cardiac Assessment" (35 min, UMTV), 1981.

"Physical Assessment: Adult Heart" (N).

"Physical Assessment: 6. Cardiac Examination" (20 min, AJN).

"Exercise for Fitness and Health" (TR).

"Diagnostic Tests I: 3 & 4. Heart: External Tests; Internal Tests" (CM).

3. Read about *diagnostic tests, apical-radial pulse, and nursing assessment of the cardiac patient.*

#### Book

McFarland and Grant, 1982, Chapter 4.

#### Journal

- Cohen, J. A., et al., "What Isoenzymes Can Tell You About Your Cardiac Patient," *Nursing* 82, April, pp. 46–49 (what is an isoenzyme and how to interpret lab reports).  
Haughey, Cynthia W., "Preparing Your Patient For Echocardiography," *Nursing* 84, May, pp. 68–71 (how to answer the patient's questions about the test).

### COMMENTS ON USE OF CLINICAL TIME

*Laboratory test results have increasingly important implications for nursing care. Nurses must be able to read them accurately and take action as necessary. Many physician's orders are written that are based on the lab result that is telephoned to the nurses' station. By the time you complete the fourth LEGS Volume, you should be able to anticipate the signs and symptoms of a patient with a particular lab result. Not every patient has typical signs and symptoms, but at least you will be alert to what you should be looking for. Start now.*

*Lab tests in LEG VII-C are many (Objective 4). You will need to spend from 30 min to an hour per week studying patient charts, observing patients, and relating your findings to the lab reports of diagnostic tests, medications, and treatments. This is not wasted time. A suggested use of clinical time to allow for the varied kinds of experience you will need follows:*

*If you are scheduled for 8 hours of clinical lab time per week, you will have 4–5 hours of actual patient care and still be able to spend 2 hours in pre- and postconference and 1–2 hours for chart study and special observations such as those in the laboratory, physical therapy, and x-ray.*

*There is time—if it is planned and if you are ready to use it well.*

4. Read the following lab reports and write out whether each is normal or abnormal for a patient 24 hours or more following an MI. There may be numerous lab reports that can be confusing when looking for a specific report (e.g., WBC or SGOT) in a patient's chart. To decrease this problem, each type of report form is labeled and color coded (e.g., Chemistry may have a black border and Hematology may have a red border). Look at the labels on the forms and on your local hospital forms.





## B. PUTTING IT INTO ACTION!

1. Select from the following list of phrases those that could *correctly* and *clearly* describe an EKG to a patient. Use these phrases plus some of your own to explain to a lay person who has never had an EKG what a cardiogram is and how it is obtained. Ask this person to imagine that he or she will be having one done that day and to ask you any questions he or she might have concerning it.

"A visual record of electric currents in the heart"

"A photograph of your pulse"

"A tracing of your heart's activity"

"A way of recording on paper what your heart muscle is doing"

"A picture of the electrical activity of your heart"

How does an EKG differ from a cardiac monitor?

What do enzymes tell you about patient illness and progress?

How does an echocardiogram differ from an electrocardiogram? Imagine you are explaining it to a 10-year-old child. What fears will he or she have that might or might not be expressed? How can you encourage a child to ask questions and reveal concerns?

What is a stress test? When is it given and where?

2. Attend a small group discussion on "Situations Needing CPR." Describe how external heart massage and mouth-to-mouth resuscitation would be given to each of the following unconscious persons:

Six-month-old Gary found covered with a pillow in his crib.

Mr. Nokord, a 54-year-old laryngectomee found floating on the top of a pool.

Jack Worker, who is bleeding slightly from a leg wound following a car accident.

Mary, six-year-old who fell out of a tree while playing.

Mark, a teen-ager with a fractured jaw that is wired together who just received a penicillin injection.

How would you determine that a cardiac arrest had occurred? How can you determine accurately that the patient is getting an air exchange into his or her lungs during mouth-to-mouth resuscitation? How would the procedure change if you were using a plastic airway with a mouthpiece for the patient and the rescuer?

- Obtain a copy of the cardiopulmonary resuscitation procedure used in your hospital, including a list of duties of hospital personnel, and insert it in this LEG. Using this procedure and taking the parts of the following persons, role-play finding a patient, who was alert the last time you visited him, now lying in bed with the head of the bed elevated and apparently unconscious, taking deep gasping breaths. You feel for a radial pulse and can find none. You look at his eyes and find his pupils dilated.

Role players: Patient, nursing student who discovers the patient, the head nurse, aide, doctor, ward clerk, switchboard operator, EKG technician, respiratory therapist.

Discussion questions following the role playing: How do you know if cardiac compression is effective? Would the compression differ for each patient mentioned above? Would you get an EKG tracing before or after starting inflation of the lungs by IPPB? Why? What do the A-B-C-D letters stand for in resuscitation? Who is legally allowed to do cardiopulmonary resuscitation in your state?

3. **Practice** taking an apical-radial pulse with two other students. You will need a stethoscope. Which of the following apical-radial pulses is correct? Why?

$$\frac{A-84}{R-76} \text{ or } \frac{A-76}{R-84}$$

How many watches do you need to accomplish this procedure?

- If you were giving a patient digitalis and counted his or her radial rate and found it to be 58, which of the following would you do next and why?

Not give the medication and chart the pulse rate.

Count the patient's apical-radial pulse rate.

Count the patient's apical rate.

Give the medication and chart the pulse rate.

Check to see what the pulse rate has been before.

Tickle the patient to wake him or her up.

List the information you will want to obtain during a physical assessment. Include what observations you want to make. How will this assessment differ from the one you make of a patient with impaired respiratory function, and what similarities are present?

Practice making a physical assessment of a cardiac patient. You may use the following guidelines or one supplied by your instructor.

- *Observe* the patient's position in bed.  
his or her respirations.  
his or her coloring.
- *Feel* the temperature of the skin.
- *Listen* to the patient's complaints: fatigue, dyspnea, headache, palpitations, chest pain?
- *Observe* the patient's behavior and mental status.
- *Listen* to the apical pulse. Identify the heart sounds S1 and S2.
- *Evaluate* the pulse rate, rhythm, strength.
- *Evaluate* the BP in both arms and compare with the patient's baseline.
- *Observe* the neck veins for engorgement.
- *Listen* to the chest for rales and wheezes.
- *Read* the daily intake and output record and weight and compare with previous days.
- *Examine* the buttocks, back, and ankles for pitting edema.
- *Listen* to the patient: how does the patient feel he or she is doing?

**4. Plan for a clinical experience.**

- ▲ Study the diagnostic tests done for patients with impaired cardiac function. Anticipate the symptoms that would occur because of the information obtained from the tests; then examine the chart for evidence of the symptoms. Visit the patient and ask him or her to share with you some health history and current problems.
- ▲ Attend a code in your hospital. Observe the responsibilities of each member of the emergency team.
- ▲ Count apical-radial rates. Practice this on infants if unable to find an adult needing this. Report any irregularity.



## OBJECTIVES

### *Diet Therapy for the Cardiac Patient*



8. *Differentiate between a mild and a strict sodium restricted diet, and give three examples of foods that are excluded from each.*



9. *List eight foods that are omitted from a fat controlled diet.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** how you would feel if you were told that you could not salt your food from now on. What if you were also told that butter is taboo and most meats because of their "high amount of the wrong kinds of fat?" You are well, and the dietary controls probably don't appeal to you. Now, consider the patient with heart problems plus the dietary controls. These patients need all the help we can give them to cope with this devastating situation.

#### 2. View audiovisuals

"Salt and Hypertension: Your Diet" (13 min, UM), 1978.

"Cholesterol, Diet, and Heart Disease" (60 min video, GSA) 1980.

"Salt and Hypertension—How to Save Your Own Life" (26 min, USC) 1982.

#### 3. Read medical-surgical and nutrition references on *diets*

Review LEG IV-C on special diets.

##### Books

Bodinski, 1982, Chapter 8, "Diet Therapy in Cardiovascular Disorders," p. 112.

Smith and Duell, 1982, "Providing Diets Associated with Fat Control," p. 520; "Providing Diets Associated with Mineral Control," p. 522.

##### Poster

"Sodium Scoreboard," Center for Science in the Public Interest, 1755 S. Street N.W., Washington, D.C. 20009, 1982 (\$3.00 paper, \$6.00 colaminated; lists sodium content of food by brand names).

##### Journal

Hill, M., "Helping the Hypertensive Patient Control Sodium Intake," *AJN*, May 1979, p. 906 (includes teaching guidelines).

4. Visit your local heart association and browse through their booklets. Find out what is available for your patients and how to obtain educational materials when the need arises. Can patients call and ask for information? Can nurses arrange to have a supply of specific booklets available on the patient unit?

List three to five booklets you have found that could be used to help patients at home. Describe briefly how you could use each (for example: pamphlet, "Save Food \$ and Help Your Heart"). Go over one idea in this book each time you have contact with the patient and review the first idea (listening to how and if it was tried) before going on to a discussion of another suggestion.

5. Check whether each of the following foods is high, medium, or low in sodium content.

<i>Food</i>	<i>Under 100 mg/ Serving Low</i>	<i>100–300 mg/Serving Medium</i>	<i>Over 300 mg/ Serving High</i>
fresh beans			
frozen green beans			
celery			
fresh green pep- pers			
baking powder			
biscuits			
bananas			
bran flakes			
parmesan cheese			
baking chocolate			
chocolate syrup			
peanut butter			
catsup			
mayonnaise			
frozen pot pie			
instant pudding			
tuna in water			
tuna in oil			
instant oatmeal			
quick oatmeal			
cold cuts			
canned vegetables			
ham			
instant coffee			
cheese			

6. Keep a dietary record of your intake for 24 hours. Underline every food that is high in sodium and circle each food that is high in saturated fat. What modifications do you need to make in your diet to prevent hypertension and coronary artery disease? *List them.*

Write down a personal dietary goal for this week. Keep it small so you won't get discouraged, and then next week evaluate your progress and write a new goal.

7. Write a menu for moderate sodium restricted and fat controlled meals for one day.

Go to the supermarket and shop for the meal. Check prices and salt and fat content on labels. Check content of dairy products, margarines, salad dressings, peanut butter, cooking oils for the presence of unsaturated, saturated, and hydrogenated fat. Read the labels on canned soups and vegetables for sodium content. Check the special foods section, too. Bring your menu and prices to the group discussion with the dietitian, along with your questions. (This experience should give you a feeling for how confused patients can be when given a diet prescription without adequate teaching.)

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Talk with your hospital dietitian about fat controlled and sodium restricted diets. Come prepared with questions to ask, which may include the following:

What is the difference between a low fat and a modified fat diet?

Why would each be prescribed? List the types of diets prescribed in your hospital to reduce elevated serum lipids. (Be sure you know what serum lipids are and how they are formed.)

What percentage of your total calories each day could be obtained from fat if you were on a fat controlled diet? Compare this percentage with that allowed on a diabetic diet. What similarities are present?

How many milligrams of sodium do most Americans consume daily?

How many do they need? Which of the categories below should we be in, in order to prevent heart disease?

2. Complete this chart of sodium restricted diets.

<i>Diet</i>	<i>mg Sodium Allowed</i>	<i>Indications for Use</i>	<i>Foods Restricted</i>
mild			
moderate			
strict			
severe			

Describe a "no added salt" diet.

3. Plan for a clinical experience.













▲ Examine the sodium restricted and fat controlled diets being served. Talk with the patients about taste, satisfaction. Try to assess their level of understanding regarding their diet. If they need to remain on the diet after discharge, when should their teaching program begin?





## OBJECTIVES

### *Rationales for Medical and Nursing Care*

-   10. State the purpose for each of the following treatment orders for patients with impaired cardiac output (CHF): diuretics, digitalis, measured intake and output, daily weighing, apical-radial pulse, elevation of head of bed, low sodium diet, oxygen, bed rest, vital signs, paracentesis. Then write a nursing care plan for a real or hypothetical patient.
-   11. Compare the goals for nursing care for patients with angina pectoris and patients convalescing from a myocardial infarction and the rationales for them.
-   12. Given a list of nursing actions, select those you would take when giving each of the following classifications of drugs: anticoagulants, antiarrhythmics, diuretics, cardiac glycosides, antianginal, antihypertensives, and antihypotensives; list the action/use, common dose, for at least one drug for each classification.
-    13. Prepare a discharge plan for a hypertensive patient that includes information related to taking medications, nutrition, exercise, and rest to achieve an optimum level of wellness. 
-   14. List three community resources that support the cardiac patient at home.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. Think about your daily routines and how they are disrupted by an illness such as the flu or some other minor problem that requires you to have more rest and to take medication. Do you ever forget to take the medication? Are you too busy to rest? Why can't you take the idea of rest to heart and stop all your activities and just "get well?" "It's so good for you." "You'll feel better that way." Pat phrases that are meaningless to a busy person who is not confined to bed, so sick he or she can't get up; it takes more than this to get your patient to "do what is best for him or her." You can do it, but your skills and energy will be severely tested.

#### 2. View audiovisuals.

"Heart Attack" (16 min, UMTV), 1976.

"Heart Attack and Beyond" (29 min, UMTV), 1976.

"Nursing Care: Myocardial Infarction" (FL).

"The Myocardial Infarction Patient" (24 min, AJN).

"Cardiovascular Disease: Heart Attacks" (CHF), 1983.

- “Cardiovascular Disease: High Blood Pressure” (CHF), 1983.  
 “Acute Myocardial Infarction: A Series” (GSA), 1977.  
     “Pathophysiology” (20 min).  
     “Pump Failure” (30 min).  
     “Arrhythmias” (40 min).  
     “Anatomy and Physiology” (30 min).  
     “Diagnosis” (50 min).  
 “Heparin Sodium and Warfarin Sodium” (TR).  
 “Stress, Tension, and Relaxation Response” (TR).  
 “Congestive Heart Failure” (TR), 1983.  
 “My Heart Attack” (TR), 1984.

**3. Read about teaching, medications, and treatment for congestive heart failure, myocardial infarction, angina and hypertension.**

**Books:**

- Blondis and Jackson, 1982, “Cardiac Patients,” p. 66.  
 Smith and Duell, 1982, “Applying Topical Vasodilator Medications,” p. 253; “Administering Sublingual Medications,” p. 261.

**Journals**

- Angell, C., et al., “Rescind the Risks in Administering Anti-Coagulants,” *Nursing 81*, October, pp. 34–41 (discussion of therapy goals; differences between treatment with high doses and minidoses and use with DIC; patient teaching and common drug interactions).  
 Butler, J. D., and Harrison, B. L., “Keeping Pace with Calcium Channel Blockers,” *Nursing 83*, July 1983, pp. 38–43.  
 Hansen, Mary S., “Nitroglycerin Ointment—Where and How to Apply It,” *AJN*, June 1980, pp. 1122–24.  
 Johnson, G. P., and Johanson, B. C., “Beta Blockers,” *AJN*, July 1983, pp. 1034–1043 (good description of action/uses and potential side effects).  
 Meador, Billie, “Warning Signs to Watch For in Your Post-MI Patient,” *RN*, July 1981, pp. 25–31.  
 McCauley, Kathleen and Burke, Kathleen G., “Your Detailed Guide for Drugs for C.H.F.,” *Nursing 84*, May, pp. 47–50.  
 Meisner, Judith, “Reducing the Risks of Digitalis Toxicity,” *Nursing 80*, September, p. 32.  
 Monahan, R. S., “What a Patient Must Know to Control Hypertension,” *JNC*, July 1981, pp. 14–16 (teaching plan; includes objectives and information to include).

**4. Complete the following chart or write drug cards.**

	<i>Class</i>	<i>Use</i>	<i>Usual Dosage Adult/Child</i>	<i>Action</i>	<i>Side Effect</i>	<i>Nursing Responsibility</i>
Digoxin						
quinidine						

Inderal						
Isordil						
Minipress						
Pronestyl						
Procardia						
Aldomet						
Ismelin						
Diazide						
Transderm-Nitro						
heparin						
nitroglycerin						
Coumadin						

**5. Write the answers to the following questions.**

- (a) What is meant by "digitalizing" a patient? What side effects can occur? What are the symptoms of digitalis toxicity? What is the difference between digoxin and digitalis with respect to dosage and excretion?

Differentiate between a maintenance dose and a digitalizing dose of digoxin, and teach an elderly patient about this.

Describe therapeutic and toxic effects of digitalis preparations. What are the nursing implications?

- (b) Make a list of each class of diuretic:  $K^+$  sparing, thiazide, carbonic anhydrase inhibitors, other. What are the nursing implications when giving each type of diuretic?
- (c) What is the stepped care approach to the treatment of hypertension?
- (d) How does the level of serum potassium in the body affect the heart rate? How can potassium be given in the diet? List three foods containing potassium. What observations would you make related to loss of potassium and to increased potassium?

Identify the therapeutic range of prothrombin time and clotting time.

What is the expected change from normal?

When is it unsafe to give heparin or coumadin?

When is heparin used therapeutically?

When prophylactically?

What is the difference in dose?

What are the nursing implications for a patient on heparin or coumadin?

- (e) How is nitroglycerine paste applied? What teaching needs are present for a patient receiving a long acting vasodilator?
- (f) How do the following affect the heart rate?

Isuprel

Hot drinks

Atropine

Vagus nerve

Cold drinks

Potassium

Calcium

Why are rectal temperatures avoided with heart patients?

Why is Levophed often referred to as "lēthofed?"

How does the patient's daily weight affect the medical orders?

## B. PUTTING IT INTO ACTION!

### 1. **Attend** a group discussion on "Teaching the Patient with Increased Blood Pressure."

To prepare for this session select a patient from your clinical area or use a case study given to you by your instructor. Work with another student to prepare a teaching plan that will prepare the patient for discharge. Present your plan to the group and be prepared to answer questions. Here are some items to include in your presentation: symptoms that are present, the pathophysiology of the disease, a description of how each medication works in the body and what side effects are either present or potential, ways to avoid a loss of potassium, how the age of the patient affects the ability to learn and change his or her life-style.

- Investigate the cost of the patient's medications for one month.
- What drug information would you include in your teaching?

What kind of visual or practice experiences can you think of to help your elderly patient learn about storing medications properly, checking the expiration date, possible interactions with other drugs?

How would you discuss the signs and symptoms of toxicity or overdose without frightening the patient? It is important for a patient to recognize what may be a fluid and electrolyte imbalance that can be corrected with diet and fluids. How can you do this for your patient?

### 2. **Select** and write which of the following rationales explain each of the patient's medical orders. If a suitable rationale is not included, write it in. The patient's admission diagnosis and symptoms are described under A-5 on page 280.

#### *Medical Orders*

#### *Rationales*

MR. RAWLINS:

Complete bed rest \_\_\_\_\_

Immediate family only to visit \_\_\_\_\_

- (a) to reduce the number of heart contractions and so decrease oxygen needs of the heart muscle



Demerol 100 mg q 4–6 h prn \_\_\_\_\_

EKG \_\_\_\_\_

Sed rate \_\_\_\_\_

CBC \_\_\_\_\_

SGOT \_\_\_\_\_

Prothrombin time \_\_\_\_\_

Heparin \_\_\_\_\_

Dicumarol \_\_\_\_\_

Vital signs q2h for three days, q4h  
one week, then qid \_\_\_\_\_

Bland low calorie diet \_\_\_\_\_

To be fed \_\_\_\_\_

Oxygen tent then nasal cannula. Then  
prn and kept at bedside \_\_\_\_\_

Gradual increase in activities and use of  
bedside commode \_\_\_\_\_

Placidyl \_\_\_\_\_

Colace \_\_\_\_\_

MRS. CAMPBELL:

Complete bed rest \_\_\_\_\_

Head elevated in position of comfort  
\_\_\_\_\_

Oxygen by mask, then prn  
\_\_\_\_\_

Low sodium diet \_\_\_\_\_

BP and apical-radial pulse and

R q 4 h \_\_\_\_\_

Digitalize \_\_\_\_\_

I & O \_\_\_\_\_

Weigh daily \_\_\_\_\_

Morphine gr 1/6 I.M. q 4 h prn \_\_\_\_\_

Diuril \_\_\_\_\_

Doriden \_\_\_\_\_

### *Independent Nursing Actions*

List the independent nursing actions  
you would want to take with each  
patient and select a rationale for  
each. Use a separate sheet of paper.

MR. RAWLINS:

MRS. CAMPBELL:

- (b) to relieve pain from ischemia of heart muscle
- (c) to reduce anxiety and associated increased blood pressure and heart rate
- (d) to detect shock or heart irregularities
- (e) to detect respiratory distress due to failure of the heart
- (f) to detect a fluid imbalance
- (g) to reduce pulmonary congestion
- (h) to reduce respiratory effort and cardiac output
- (i) to maintain arterial blood pressure
- (j) to increase flow of venous blood in legs and prevent emboli
- (k) to prevent pooling of venous blood in legs and prevent emboli
- (l) to reduce the risk of emboli formation
- (m) to regulate the dosage of anticoagulants
- (n) to avoid abdominal distention that interferes with respiration
- (o) to avoid straining at stool that increases arterial blood pressure, which might cause rupture of weakened heart muscle
- (p) to reduce the retention of fluid in the body
- (q) to remove excess fluid retained in the body
- (r) to prevent skin breakdown
- (s) to strengthen the heart muscle and decrease its rate
- (t) to reduce return of venous blood to the heart and decrease pulmonary congestion
- (u) to prevent foot drop
- (v) to reduce cardiac arrhythmias
- (w) to determine exercise tolerance and recovery of heart muscle
- (x) to help adjust to crisis event
- (y) to remove fluid in abdominal cavity
- (z) to find difference between apical rate and radial rate (pulse deficit)
- (aa) to dilate the coronary blood vessels

3. Select which of the nursing actions in the right column might have caused the situations occurring on days 4, 6, and 7 described in the left column.

### *Situations*

Mrs. Campbell was ordered to be weighed daily while still on bed rest. The bed scale was used, and this is a record of her weights for three days:

Day 1: 160 lb

Day 2: 156 lb

Day 3: 153 lb

Which of her medications would account for this weight loss? Review medical orders under B-2

On Day 4 she weighed 157 lb. When the doctor came in and saw the recorded weight, she questioned who had weighed the patient. Which of the actions on the right might have caused the error in weighing?

- 
- Why is the doctor sure an error was made? (What symptoms would be observable if the patient were beginning to retain fluid again?)\_\_\_\_\_
- 

On Day 5 Mrs. Campbell weighed 150 lbs. On Day 6 there was no weight recorded.

- Which of the actions on the right might have caused this omission?\_\_\_\_\_
- 

On day 7 the patient was getting out of bed, and the nurse brought the scale into the room. When she returned, she found the patient weighing herself. Her weight was 150 lbs.

- Is this accurate? Why? \_\_\_\_\_

### *Nursing Actions*

- (a) weighs patient at any time of day
- (b) weighs patient before breakfast daily
- (c) balances scale before weighing a group of patients
- (d) balances scale before weighing each patient
- (e) records weight on piece of paper as soon as completes weighing patient
- (f) sometimes forgets to record weight immediately and writes down what she remembers it was
- (g) keeps a list of all patients to be weighed and brings it up to date daily
- (h) looks through Kardex daily for patients to be weighed
- (i) delegates responsibility to nursing assistant who has been evaluated in his or her ability to weigh patients
- (j) delegates responsibility to nursing aide, who has no idea of why patients are being weighed or need for accuracy

**4. Plan for a clinical experience.**















- ▲ Care for patients with signs of heart failure. Write a nursing care plan prior to caring for the patient if possible. Include a rationale for each medical order and nursing intervention. Reevaluate it after caring for the patient and make changes as necessary. Present it in postconference.
- ▲ Demonstrate changing an occupied bed from top to bottom. Why do you think this might be necessary?
- ▲ Weigh patients with edema. Review weighing if necessary in Volume I.
- ▲ Talk with patients with hypertension. Assess their learning needs and begin a teaching plan.
- ▲ Observe heparin being given and review the lab work. Find out what the antidotes for heparin and Coumadin are. Look ahead to Volume IV for more on administration of heparin.
- ▲ Talk with the pharmacist about drug interactions, especially those occurring when patients are on cardiac glycosides and diuretics. Discuss antihypertensive therapy.





## OBJECTIVES

### *Basic Needs of a Patient Following a Myocardial Infarction*

-   15. Describe how the basic human needs are met for and by a patient convalescing from a myocardial infarction.
-   16. Given a list of statements about the effects of stress on the circulatory system, select those that are correct and describe two ways to reverse those effects.
-   17. Given a patient situation in which the patient is being uncooperative, describe your reaction to the behavior and list two helpful approaches you could take to determine the reason for the patient's behavior.
-   18. List and sequence the activities for an MI patient to allow for a gradual progression from his or her present state toward a normal but modified life-style.
-     19. Identify signs that might occur during or following activity that indicate exertion is too great.
-  

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about nursing care.** What aspect is most important? The acute, critical, life-and-death stage? It seems so on television. But what happens to the patient whose life is saved? Then what? We have an obligation to meet this patient's need through the many weeks of convalescence as he or she tries to salvage a life. Why shouldn't the patient be anxious and hostile—"Why me?" His or her needs must be met. Nurses must place an equally high value on continuing supportive care to help the patient become able to help him- or herself.

2. **View films on coronary heart disease.**

"Introduction to Nursing in a Coronary Care Unit" (26 min, AHA). Shows the care immediately after a heart attack.

"Myocardial Infarction, The Nurse's Role" (AHA), Part I, "The Acute Phase" (25 min). Signs and symptoms. Part II, "Hospital Convalescence" (16 min). Nursing care, including emotional needs. Try to identify the nurse's independent actions and the stages of the patient's grief process.

3. Read about stress reduction, relaxation techniques, and myocardial infarction in medical-surgical, anatomy and physiology, and nurse-patient relationship references.  
Review stress in LEGS II-A and VI-B.

Book

Lion, Elizabeth M., *Human Sexuality in Nursing Process*, New York, Wiley, 1982, Chapter 14, MI.

Journal

Moore, Karen, Folk-Lighty, Marie, and Nolen, Mary J., "The Joy of Sex After a Heart Attack, Counseling the Cardiac Patient," *Nursing* 84, April, pp. 104-113 (an update of the June, 77 article that covers danger signals and includes a teaching aid of the guidelines for sexual intercourse).

Programmed

"Understanding Hostility" (*AJN* reprint).

[Note: Journal articles are the most up-to-date written materials. Textbooks may run a year or more behind the most current techniques and treatments involved in patient care. Use them selectively as references. Be alert to new ideas. Attend lectures. Television series and news journals frequently have good information. As you come across new material, make notes in the readings section; cross out the old information and add the new.]

4. Describe the types of expected behavior of the patient during each stage of adjustment following an MI. Across from each stage, describe the nursing actions that are most helpful. This kind of question is to stimulate you to anticipate and, therefore, prepare to care for patients convalescing from an MI. Share your ideas and information. Add to this section after you have observed many patients. Review your theory on denial, grief reaction, and depression in LEG VI-A.

5. Write the effects of long-term stress on each of the following:

Effects of Stress	
(a) heart rate_____	
(b) cholesterol deposits on blood vessel lining_____	
(c) blood clotting time_____	
(d) coronary blood vessel size_____	
(e) release of epinephrine_____	
(f) arterial blood pressure_____	
(g) blood viscosity_____	

Which of the above effects are related to the following diseases:

angina pectoris\_\_\_\_\_

MI \_\_\_\_\_

CHF \_\_\_\_\_

What symptoms would indicate cardiac stress following sexual intercourse?

List all the stress reduction methods you know about. Share your list in your group discussion.

Review stressors in LEG VI-B.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Practice** getting the following patient out of bed. Use another nursing student or family member as a patient.

Mr. Glee has been on bed rest for two weeks following a severe MI. His vital signs have been stable, and the doctor has ordered progressive ambulation. For the past two days he has been allowed to sit on the side of the bed for 10–15 min twice a day. He has tolerated this with no ill effects, so today he is to walk a few steps and sit in a chair for 15 min.

- How can you learn what the patient's feelings are about getting up? What might they be? Why would you want to know?
- How do you feel about getting him up? Afraid, confident, nervous?
- How do you communicate your feelings to a patient? In your face, your voice, your hands? Think it through! If you expect to feel nervous, is it because you don't know what unexpected event may occur, such as the patient's becoming faint or having chest pain or getting short of breath? Plan ahead. Know exactly what you will do if any of these events do occur! Be prepared and the patient will know you can handle the situation with calm intelligence. If you are calm, the patient's anxiety will decrease, and he will tolerate the activity better. *You are the key person.*
- What will be included in your assessment before getting the patient up? After he is sitting on the side of the bed? After he has walked? While he is sitting in the chair and after he has returned to bed? List them here.
  - 1.
  - 2.
  - 3.
  - 4.

Why continue to assess the patient at these intervals? Record your practice on a charting form available in your hospital. Insert it here.

- Make up a description of the activity accomplished and your observations of the "patient's" tolerance to it.
2. List your daily activities. Sequence them in terms of energy costs. Indicate the proportion of the day you spend sitting, walking, bicycling, and so on. How much exercise do you get daily?
  3. Arrange these activities in sequence according to the amount of energy expended.

tooth brushing	lifting up arms
sitting at a desk	brisk walking
slow walking	scrubbing floor on hands and knees
shopping	scrubbing floor with mop
showering	bike riding
taking tub bath	tennis
jogging	golf
reaching	stooping
straining at stool	pushing up in bed

4. Attend a small group discussion on "Needs of the Patient Convalescing from an MI" after viewing the film "Myocardial Infarction—The Nurse's Role." List the basic human needs on a chalk board or overhead. Identify those that were problems for the patient during his or her first week and second week of convalescence. List the problems across from the appropriate need. Write out as many nursing goals and interventions as you can think of as a group. Refer to the Introductory Section on nursing care plans.
5. Plan for a clinical experience.
  - ▲ Care for patients following MI. Begin a nursing care plan before giving any care. Complete it when your care is finished. Describe the patient's behavior and compare it with your preconceived idea. Try to identify which stage of adjustment the patient is in. Include learning needs.
  - ▲ Give medications to patients with heart disease. Read charts of patients with heart disease.
  - ▲ Look at the lab work, treatment plans, reactions to care. Visit the patients and make observations related to their diseases.
  - ▲ Visit the cardiac rehabilitation department if available in your community. Discuss their program with the nurses. Find out what information is taught and what teaching methods are most effective. Inquire about the educational preparation needed by the nurses in order to work in that unit.



# OBJECTIVE

## *Acute Care Requirements Due to Fluid Excess*



20. Given situations of patients with symptoms of fluid excess, state at least one possible cause (e.g., body system problem, medication or medical therapy, or a combination of these) and three nursing interventions for each.



21. Given a description of a patient being admitted to the hospital with acute CHF and a list of his or her medical orders, describe the nursing care for the first 8 hr; state your rationale and include the signs and symptoms that indicate the treatment plan is effective. Write a nursing care plan. (H)

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** heart failure, a very frightening experience. Patients in heart failure can be critically ill one minute and then respond well to treatment. This is a chronic disease. Many patients have learned to live well with controlled therapy. *Listen* to your patients. They can help you learn to help other patients with failing hearts. Your careful observations and reporting can prevent catastrophe!

2. **View** audiovisual.

"Clinical Application of Fluid and Electrolyte Imbalance: Excesses" (24 min, AJN).

3. **Read** about *heart failure, emergency drugs* in medical-surgical, pediatric, and pharmacology references.

#### **Book**

Smith and Duell, 1982, "Restoring Circulatory Function (Rotating Tourniquets)," p. 634.

#### **Programmed**

Kee, Joyce L., *Fluids and Electrolytes with Clinical Applications*, New York, Wiley, 1982, "Edema—Extracellular Fluid Volume Excess," pp. 250–266; "Congestive Heart Failure, Clinical Situations," pp. 329–404.



1. Time 9:10 a.m.



2. Time \_\_\_\_\_



3. Time \_\_\_\_\_



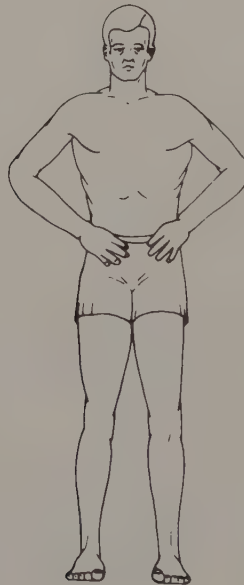
4. Time \_\_\_\_\_

4. **Draw** the tourniquets on the patient diagrams, indicating how and when they are rotated. Physician's order reads: "Rotate tourniquets q 15 mm."

Why are rotating tourniquets used?

Why might patients with fluid excess have a need for rotating tourniquets? How do the tourniquets help them? Bring your answers to the group discussion.

5. **Shade** in blue on the figure below the areas where signs of ECF ↑ could occur. List three nursing actions you would take to help the patient.



List as many symptoms of fluid excess as you can think of. Describe the pathophysiology that causes excess fluid. Review LEG VII-B on fluids.

## **B. PUTTING IT INTO ACTION!**

---

**1. Attend** a small group discussion on "Caring for Patient with Potential Fluid Excess." To prepare for this group, bring your nursing care plan for a patient with CHF from Objective 10 or complete a case study assigned by your instructor.

Bring some reference books with you to the meeting.

Decide on two or three of the patients in the plans and discuss the nursing care for the first 8 hours after admission. What signs and symptoms were present? How did these change with treatment? Does that tell you the treatment was effective?

Come prepared to discuss nursing interventions in relation to the following:

Record I & O carefully

Weigh daily

Rest

Diuretics

Observations for signs of dehydration with rapid diuresis:

Stable BP; fullness of neck veins; hematocrit; urinary output, skin turgor

Check bony prominences; meticulous skin care

Low salt diet

Signs that the treatment is effective:

Decrease in pitting edema

Weight loss

Good urinary output

Absence of neck vein distention

Decrease in pulmonary congestion

Decrease in circulation time and venous pressure

What are some observations and nursing actions you would make if your patient had left-sided heart failure? Right-sided failure? Discuss the different symptoms and care.

**2. Practice** drawing up "Emergency Medications." Use a 50 cc syringe and needle and a 30 cc ampule. Fill the ampule with water and practice drawing up the solution. You will find it takes several tries to develop a technique to draw it up quickly without spilling it or getting air in your syringe.

Occasionally, this amount of medication must be given in an emergency situation. Be prepared. Develop this skill now! (Read about the use of sodium lactate before giving cardiac stimulants.)

**3. Plan** for a clinical experience.

▲ Care for patients with CHF. Observe for fluid excess. Observe their symptoms and behavior now. Read about their problems on admission and ask the patients to

describe how they felt before coming into the hospital. Write down the medications they received and be able to explain the rationale for medical and nursing treatment.

- ▲ Examine the emergency medications on the patient unit. Which drugs might be given for hypotension, cardiac arrest, heart block, pulmonary edema? What equipment would be needed to administer them?
- ▲ Observe and assist with application and use of rotating tourniquets.
- ▲ Chart your observations and nursing care. Then look at the charting critically according to the categories in Objective 3, LEG VI-B.
- ▲ Review the **Clinical Expectations for Level VII** on the Why page.



# LEG VII-C

## Cardiac and Hypertensive Problems

### HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VII-C are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the “doing” Objectives. Use a separate sheet of paper for these answers, and then use the answers in clinical or campus lab for your own evaluation.

#### *Objectives*

#### *Questions*

- 1                      1. List and briefly describe three life-styles that can increase the risk of developing heart disease.
  - (a)
  - (b)
  - (c)
  
- 2                      2. Which of the following best describes what occurs to the heart with angina:
  - (a) The left side of the heart has weakened and is unable to move the blood out easily.
  - (b) There is a blockage in the coronary artery and oxygen can no longer reach the heart muscle and tissue dies.
  - (c) The blood vessels become sclerosed and offer abnormal resistance to the blood flow.
  - (d) There is a temporary reduction in the amount of oxygen in the myocardium and pain occurs.
  
- 3                      3. List one probable cause and at least two symptoms of the following diseases:

<i>Hypertension</i>	<i>Congenital Heart Defects</i>
Cause:	
Symptoms:	
  
- 4                      4. Look at each of the following lab reports. Write the purpose of each lab test for a patient with an MI and state whether it is normal or above normal and whether this is expected for this patient.

CHEMISTRY B



5. Your patient is scheduled to have an EKG. He or she has never had one before and asks you what will happen during the test. Your best reply will be:
  - (a) "The machine makes a picture of the electrical activity of your heart."
  - (b) "You are connected to a machine with wires, and the electrical current is recorded on a graph."
  - (c) "The technician will place small straps on your wrists and ankles and you will be asked to just lie quietly. The straps are connected to the cardiograph machine, and it records on a graph. The graph tells exactly what your heart is doing at that moment. You will feel nothing."
  - (d) "An instrument is moved over your chest. The high frequency sound waves are recorded on graph paper. You just lie quietly."
6. Describe counting an apical-radial pulse and making a systematic physical assessment. Ask another student to evaluate you, according to criteria provided by your instructor. Imagine that your patient has a cardiac problem.
7. While taking a diet history, your patient tells you that she likes to have the following foods for breakfast: tomato juice, fried egg, bacon, bagel, lox (smoked salmon), cream cheese, coffee, cucumbers, radishes, tomatoes, coffee, cream, sugar. Which of these foods will need to be omitted if she is on each of the following diets:
  - (a) mild sodium restricted (2,500–4,500 mg sodium)
  - (b) strict sodium restricted (500 mg)
  - (c) fat controlled
8. Describe the difference between mild and strict sodium restricted diets.
9. Write the purpose for each of the following treatment orders for patients with CHF:

Diuretic:	Elevate head of bed:
Digitalislike medication:	Low sodium diet:
Intake and output:	Oxygen:
Weight daily:	Bed rest:
Apical-radial pulse:	Vital signs:
	Paracentesis:



- 11 10. Describe goals and rationales for nursing care for patients with angina pectoris and patients convalescing from myocardial infarction, identifying their similarities and differences.
- 12 11. Place the letter of the appropriate action(s) in front of each classification of drug.
- |                       |                         |
|-----------------------|-------------------------|
| _____ anticoagulant   | _____ antihypertensive  |
| _____ antiarrhythmic  | _____ diuretic          |
| _____ antihypotensive | _____ cardiac glycoside |
| _____ antianginal     |                         |
- (a) give at exact time ordered
- (b) check dosage daily
- (c) check BP and P frequently
- (d) watch for infiltration if given I.V.—may cause necrosis
- (e) watch for hematuria, ecchymosis
- (f) don't administer aspirin
- (g) check clotting time
- (h) check prothrombin time
- (i) check pulse before giving
- (j) instruct patient to dissolve tablet under tongue
- (k) administer into subcutaneous fat pad and avoid massaging area following injection
- (l) allow patient to keep at bedside and take when needed with a doctor's order
- (m) chart each dose in the nurse's notes
- (n) watch for dizziness, fainting, headache
- (o) have patient sitting or lying when taking drug
- (p) instruct patient about increased voiding
- (q) check on voiding
- (r) watch for nausea and vomiting
- 13 12. Attend a GES to role play teaching a patient with hypertension about self-care after discharge. Bring a sample list of medical orders and educational materials you would want to use.
- 14 13. List three agencies or persons in your community who have a service to offer the cardiac patient at home.
- 15 14. Mr. Bland is recovering from an MI that occurred three days ago. He is on a bland, fat controlled diet. He is allowed to shave and feed himself but not bathe yet. List the basic needs and how they can be met for this patient. Under each need state one potential complication or problem that could occur (for example, need for activity: complication might be thrombophlebitis).
- 16 15. Write whether these statements are true or false.
- \_\_\_\_\_ Stress decreases the viscosity of the blood.

- \_\_\_\_\_ Stress increases the cholesterol levels in the blood.  
\_\_\_\_\_ Stress increases the heart rate.

16

16. Describe two ways to reduce the effects of stress on our bodies.

(a)

(b)

17

17. You are told to give Mr. Breeze a bath this morning, as he is on bed rest following a myocardial infarction. When you enter the room, you find him sitting at the edge of the bed smoking. You know he is not supposed to smoke and not to sit up yet, either. He gives you a look as if to say, "I dare you to stop me." What two actions could you take to find out why he is disobeying the doctor's order and to help him follow the prescribed treatment plan?

(a)

(b)

18

18. Describe a patient with a myocardial infarction both before and after the MI. (Use a nursing history or DBF.) List the patient's activities (before and during his or her hospital stay), and then sequence those activities that will allow the patient to gradually progress in terms of energy cost from the present state to resuming a normal but modified life pattern.

19

19. Following a walk to the mailbox one evening, Mr. Roberts noticed that he was slightly short of breath but did not feel tired. His pulse rate was above 100 for about 15 min. The following day he felt too tired to repeat the trip. Which of these symptoms indicates the walk was too strenuous?

20

20. State one possible cause and one nursing action for each of the following patients' fluid excess problem.

Mr. Puffen has chronic heart disease and is admitted to the patient unit with poor color and dyspnea.

Mrs. Reno has been complaining of voiding only scanty amounts of urine for two days, even though she is thirsty and drinks "plenty of water." Her face is puffy, and her ankles have pitting edema.

21

21. Write a nursing care plan for a patient with CHF during his or her first eight hours after admission.

## LEVEL EIGHT

# WHY SHOULD I STUDY?

You are more than halfway through Volume II and should have acquired a working knowledge of how the body functions in time of stress and crisis as it strives to maintain a balance of its fluids, gases, and electrolytes when a dysfunction occurs. You, as a responsible nursing student, can recognize how a patient is coping with a dysfunction and how you can organize your nursing actions to further facilitate the body's ability to overcome its problems and to help your patient help him- or herself.

In Level Eight you will learn how the body functions, during childbirth and the puerperium, and how you can help the mother to experience this normal body function in her own best way. You will experience ways to help a new mother be successful as she "mothers" her new infant, and you will learn how to give physical care to both mothers and babies. The gastrointestinal body system will also be explored, and you will find out how you can apply the ups and downs of food and fluid to actual patient situations. You must apply all of your working knowledge as you increase your ability to give intelligent, skillful care to your patients.

To meet the **Clinical Performance Expectations** for Level Eight, you should be able to:

1. Search out information in the health agency on your own initiative.
2. Seek any additional information you need to know about your patients and take steps to find this information, whether it involves asking questions or reading further in the chart (e.g., lab reports).
3. Know your own limits of knowledge and skill (based on self- and instructor-evaluation) and ask for assistance when an experience requires you to exceed those limits (for example, you can give intramuscular injections safely, but you request supervision when giving your first subcutaneous heparin injection).
4. Use *each* patient contact to obtain the most information possible and give the best care you can (e.g., make numerous observations when in a patient's room to give a medication and listen to what the patient is saying so that you can respond therapeutically).
5. Report and record information in sufficient detail for clarity.
6. Modify nursing care plans based on evaluation of outcomes.
7. Explain the relationship between the nursing diagnosis, the patient's condition, and the treatment plan.

You will make better use of your time as you find yourself attempting to assume greater responsibility for patient care. Strive to increase your efficiency by careful and complete planning of increasingly complex clinical experiences. Look at your own per-

formance critically and continue to identify your strengths and weaknesses. Are you still weak in the same areas as you were in Level Six? What have you done, specifically, to improve them? Just wishing and hoping won't change things. Now is the time to identify your problem areas and to actively begin to solve those problems. Talk with your instructor to find out what experiences are available to give you additional practice. Don't procrastinate! Be honest with yourself. Seek help and help yourself. Your behavior can be strengthened.



# LEG VIII-A

## Labor and Delivery

### WHAT WILL I LEARN?

The process of labor and delivery can be viewed as either a crisis event, or a regulatory event. In reality it is both. Regulatory implies the body's internal system of controls and balances that keeps the body in a state of equilibrium and health. During pregnancy these adaptations in the mother's normal balances are evident. In LEG II-B you studied about the physical changes that take place in the mother's body. It is a normal process for her to supply the fetus with room to grow, oxygen, fluid and electrolytes, nutrition, and a means for elimination until the labor of delivery mysteriously begins.

At this point the process is "out of control" for the new mother. This is a crisis situation; her coping mechanisms are untried and she is at the mercy of the birthing personnel. The new mother is experiencing loss: her baby, who has been very close for nine months; her "couple" situation with the new father, or the family group before the new baby.

You will learn how to help the mother in labor by teaching her breathing exercises, how to save her strength until the time, during the second stage of labor, when she needs it most. You will learn to observe for signs of the progress of labor. You will learn which signs require additional and different nursing actions (for example, rupture of the membranes and the extra stress on the fetus) to prevent untoward symptoms.

You may have the opportunity to see many or few deliveries. However lucky you are, make the most of each opportunity. Be ready! Have your "homework" done so that you know what to expect, how to find out what you need to know, and how to proceed in this very specialized part of the hospital.

You will learn what each of the four stages of labor involves. The fourth stage of labor is the time from delivery of the placenta until the transfer of the patient and infant to the maternity floor. It is the immediate recovery period; body systems are beginning the regulatory process of restoring the mother's body to functioning without the fetus and helping the infant begin to adjust to this "cold, cruel, polluted world."

The **content of the Objectives** for LEG-VIII-A is:

- Growth and Development of the Fetus (1)
- Admission and Assessment of a Patient in Labor (2-6)
- Prep, Enema, Catheterization (7-9)
- Monitoring a Patient in Labor (10-12)
- Anesthesia and Analgesia (13-15)
- Second and Third Stages of Labor (16-19)
- Oxytocics (20)
- Fourth Stage of Labor and Immediate Care of Newborn (21, 22)
- Counting and Monitoring Fetal Heart Rate (23, 24)
- Signs of Placental Separation (25)

## WHAT'S AHEAD IN LATER LEGS

The complications of labor and delivery will be studied in LEG XI-A, Volume III. Look ahead to see how this LEG fits into the total subject. If you have patients with complications, look ahead now.

## OVERVIEW OF LEARNING EXPERIENCES IN LEG VIII-A

Objectives	Campus Lab Practice	Group Discussions/Lectures	Clinical focuses
1. Fetal development (E)		B1. Fetal development	B5. Check for position and size of fetus
2, 3. Admission and assessment of a patient in labor 4, 5. Observations of attitudes and physical changes 6. Physiology of the stages of labor	B1. Breathing patterns	A4. Labor: cause and signs; how to minimize fear, pain, and discomfort B6. Admission of a patient in labor	B6. Observe and assist with admission Sit with mother during labor Observe patient in three stages Give care to patient in labor Talk to mothers 2-3 days postpartum Teach or coach three patients to change breathing patterns Attend a class on psychoprophylactic methods
7, 8. Prep and enema for a patient in labor 9. Differences in catheterizing a patient in labor	B3. Enema		B5. Observe a cleansing enema Assist or administer an enema Observe a perineal shave preop and-for patient in labor Do a preop perineal shave Observe a catheterization
10. Monitoring (assessing) FHR 11. Assessing cervical dilatation 12. Assessing uterine contractions	A6. Study electronic monitoring graphs		B5. Assess FHR Observe and listen to FHR before, during and after contractions Observe and time uterine contractions Apply a transducer and a tocotransducer Read graphs from electronic monitoring
13-15. Anesthesia and analgesia		B1. Analgesia and anesthesia	B3. Observe patients receiving anesthesia and analgesia Follow three patients from early stages of labor
16. Physiologic and psychologic changes in second stage of labor 17. Teaching and assisting with breathing patterns 18. Transfer and nursing care in the delivery room 19. Third stage of labor		B1. Giving support to patient in labor	B2. Observe second stage of labor Observe transfer of mother to delivery room Observe changes in breathing and "bearing down" during second stage. Assist with delivery
20. Oxytocics		B1. Patients and oxytocics	B2. Look at oxytocins in clinical facility
21. Nursing care during the fourth stage of labor 22. Immediate care and assessment of the newborn		B1. Effect of medications on mother and baby and assessment and care of the newborn	B3. Observe infants immediately following birth Observe mothers during fourth stage Assist with care of new mother and infant immediately following delivery
23, 24. Counting and monitoring fetal heart rate (24 (E))			B1. Observe fetal monitoring both internal and external Count FHR
25. Observations for placental separation			B1. Observe for signs of placental separation

# NEW TERMS AND ABBREVIATIONS

acmé	laryngospasm
Brazelton assessment	lightening
caput	maternal hypotension
caudal	meconium
crowning	neglect
deceleration (FHR)	overprotection
decrement	oxytocin
descent	perfectionism
dilatation	physiologic bradycardia
Dubowitz assessment	
effacement	placenta { manual expressed adherent
engagement	rejection
episiotomy	show
fetal narcosis	station
FHR	tetanic contraction
increment	uterine contraction
interval	vertex



# OBJECTIVE

## *Growth and Development of the Fetus*



1. Describe fetal development during the first, second, and third trimesters, either in detail for each lunar month or by summarizing development occurring during each trimester (three months), including length, weight, and one or two developmental characteristics (appearance and/or movement) of the fetus. (E)

[Note: Objective 1 was an Extra Added Objective in LEG II-B.]

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think** about the tiny cell that becomes a human being in approximately nine months, automatically, without being reminded as to when to grow, move, eat, sleep, and so on. Fetal development is in precise stages, each stage essential to the next. As each lunar month passes, there are fewer dangers to the fetus. Fetal development is not only interesting or fascinating, it is good to know so you can help the mother to understand and to cope with her own physical changes.

#### 2. View audiovisuals.

"Barnet (The Child)" (48 min, IFB) Recommended for prenatal clinics; includes fetal development.

"Genesis, The Origins of Human Life" (9 min, UM), 1974.

Three films: "Fertilization"; "A Child is Born"; "Development."

"Have a Healthy Baby: Pregnancy" (22 min, CHF, UM), 1978.

Embryo from conception to term.

"Fetal and Neonatal Circulation" (16 min, MTP).

"The Miracle Months" (TR).

"Life in the Womb: The First Stages of Human Development, Part 1, The Course of Development; Part 2, Influences on Prenatal Development," (HRM).

#### 3. **Read** about the physiology of the *placenta, fetal circulation, amnion, chorion, and fetal development*.

Review LEG II-B for the physiology of ovulation, menstruation and conception, and development of the embryo. You are responsible for this content, and will need to use it as you study and practice in labor and delivery.

#### 4. Answer the following questions as you read:

- (a) How would you describe a mature placenta in size and appearance?

(b) List some growth and development characteristics of the fetus from zygote through gestation:

first month embryo: (4 weeks)

second month: (8 weeks)

third month: (12 weeks)

fourth month: (16 weeks)

fifth month: (20 weeks)

sixth month: (24 weeks)

seventh month: (36 weeks)

eighth month: (40 weeks)

5. Summarize the fetal growth and development for each trimester.

**B. PUTTING IT INTO ACTION!** \_\_\_\_\_

1. Attend a group discussion on "Fetal Development." Bring your list of characteristics from A-4 or A-5 for this discussion.

- Consider the following:

What are some psychological changes you might expect to observe (subjective or objective) in the mother for each stage of fetal development? Compare your answers with the physiologic changes given in a maternity reference.

What are the nursing implications?

Explain to another how the placenta develops. Choose words that would help a new mother understand how the placenta develops and how it functions.

Explain the fact that there is no direct communication between the maternal blood stream and that of the fetus.

Why is the fetus vulnerable to certain dangers during the first trimester? Discuss the placental barrier. Discuss the teratogenic effect of drugs (thalidomide, specifically), x-ray, rubella, and other diseases.















- Discuss the developmental tasks for each trimester of pregnancy. List these on a board as each is mentioned. Note the pattern as pregnancy progresses. Why is it important that each developmental task be completed before the new mother goes into labor? (Much of this will be review from antepartal care in Volume I.)
- 2. Look at a drawing in one of the maternity texts illustrating fetal circulation. Study this so that you could identify the following structures even if there were no labels on the drawing. (Cover the labels). Identify: the umbilical vein, hypogastric arteries, aorta, pulmonary artery, ductus venosus, ductus arteriosus, foramen ovale, superior vena cava, inferior vena cava.  
Which of these structures are found only in fetal circulation?  
Where in fetal circulation is the highest percentage of oxygen? Carbon dioxide?
- 3. Describe the three germ layers formed in the development of the embryo.
- 4. Describe what the initials mean for common positions and presentations: LOA, ROA, ROT, LOP, ROP, LSP, LMA, and RADP. Which are most desirable? How might each of them affect the mother and baby?
- 5. Plan for a clinical experience.
- ▲ Observe in an obstetrical office or clinic or in labor and delivery. Check for the position and size of the fetus. Do this as many times as possible.





## OBJECTIVES

### *Admission and Assessment of a Patient in Labor*

-   2. *Demonstrate or role play admitting a patient in labor using an intrapartal assessment form or tool.*
-     3. *Demonstrate or role play assisting a patient during labor; apply at least five (5) specific nursing actions that would minimize fear, pain, and discomfort; include three (3) psychoprophylactic techniques that may be used with relaxation.*
-   4. *Given several statements about pregnancy and childbirth (samples of patient conversations), identify which ones display an accepting attitude and which ones display fear or rejection.*
-     5. *Describe orally or in writing at least two major events that occur during each of the four stages of labor.*
-   6. *State the purposes and the average length of time for each stage of labor, including the phases of stage one and the muscle groups involved (e.g., abdominal or uterine).*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the meaning of the word "labor." What does it mean to you as a student, a working man, a mother-to-be, a 17-year-old primipara who is shy and quiet, a 36-year-old multigravida, talkative and self-assured?

What is involved in "labor" outside of the delivery room (e.g., preparation, job to be performed, time required, reward)? Compare this meaning as you think and study about labor and delivery.

Think about food and fluid intake and urinary output in relation to a person doing hard, physical labor (muscle output). Think about that person's vital signs. How are each affected by hard labor? Compare these reactions and needs to those of the mother-to-be in labor. Why are these observations by the nurse so important?

#### 2. View audiovisuals.

"Hospital Maternity Care: Family Centered" (28 min, MTP).

"Modern Obstetrics: Normal Delivery" (27 min, MTP).

"Modern Management of Multiple Births" (18 min, MTP).

“Modern Management of Pregnancy in the Rh-Negative Sensitized Woman” (29 min, MTP).  
 “Have a Healthy Baby: Labor and Delivery” (29 min, CHF, UM), 1978. Two couples followed.  
 “How Life Begins” (46 min, MH).  
 “The Baby Makers” (43 min, UM), 1980. Explores controversies of “test-tube babies.”  
 “Birth at Home” (14 min, F), 1980.  
 “Birth Centers” (24 min, UM), 1979.  
 “Birth in the Squatting Position” (10 min, PMF, LLLI), 1983.  
 “Daughters of Time” (30 min, D), 1981. Three nurse midwives.  
 “And Then There Were Four” (BWA), 1982. Different positions during the first stage of labor.

**3. Read** a variety of maternity, nurse-patient relationship, and psychiatric nursing references. Look in the index under *fears during labor, rejection, attitude of the mother, establishment of nurse-patient relationship*.

Review LEG III-C and LEG V-B. Relate concern, anxiety, and pain of other patients you have observed with the discomfort and pain of labor and delivery.

### Books

Butnarescu, Glenda F., and Tillotson, Delight M., *Maternity Nursing, Theory to Practice*, New York, Wiley, 1983, Chapter 16, “Labor,” p. 305.  
 Smith, and Duell, 1982, “Obstetrical Assessment, Initial, and Antepartum,” p. 196 (Review); “Intrapartum Assessment,” p. 199; “Labor and Delivery Assessment,” p. 200.

### Journal

Meissner, Judith E., “Predicting a Patient’s Anxiety Level During Labor: A Two-Part Assessment Tool,” *Nursing* 80 July, pp. 50–51.

**4. Attend** a small group discussion on “Labor.” Include at least two mothers (and fathers) in the group, if possible. Select at least one of the following topics:

- *Cause and Signs of Labor*. What is known about this phenomenon?

Consider the shy quiet teen-age primipara and the middle-aged talkative multigravida, both admitted in early labor.

Discuss these questions related to the situations above.

How do you know what each mother is thinking? Feeling?

How can you let her know you care and want to help?

What explanations can you give her for what is going on?

What “triggers” labor for all women?

How does each patient know the significance of the various signs?

Why is this important?

What if one sign doesn’t occur?

What if one sign occurs out of sequence?

How would these questions or concerns differ for each of the patients? Why?

What if (1) a patient, pregnant for the third time, had had a very “bad” experience the second time she was in labor? (2) The mother-to-be can’t afford this new baby or doesn’t want a baby or can’t care for one at this time? How would this probably affect the mother’s attitude toward labor? How can you tell when the signs and symptoms are more than those of normal fears and concerns?

- *Labor and How to Minimize Fear, Pain, and Discomfort.* Role play or discuss some specific nursing actions to minimize fear, pain, and discomfort with another student for the two patients above. Ask for criticism and suggestions from the group members to aid you in becoming more effective in giving supportive care. Discuss the behavioral signs that would alert you to the fact that a mother-to-be has strong feelings of rejection or abnormal fears concerning labor. You may want to diagram these on the board and then discuss your nursing action when these signs are noted.
- *Admission of a Patient in Labor.* Think about admission of any patient to the hospital, about the purpose of the hospitalization, and how this influences the patient’s attitude. How does admitting a patient in pain differ from admitting one who is not in pain? Relate these thoughts to admitting patients in labor—both primiparas and multiparas.

Does your admission form have a space to note the *Time of last meal*? Why is this important? Discuss the importance of noting the *anticipated analgesia/anesthesia* and *blood type* on the form. Be sure that you develop the habit of noting these clues for each and every patient.

**5. Talk** with a mother (your own or some other). How did her labor progress the first time, the second, the fourth? What about the signs of approaching labor? Did they all occur? What sequence? What was her reaction? How did this reaction change after the first experience? What would your response be if the mother stated, during the course of the conversation:

“I had a dry birth.”

“I was in labor three weeks.”

“My grandmother told me not to raise my arms or the cord would get knotted.”

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Practice** changing breathing patterns. Use a reference book and ask for help prn. You must know how to do this before you can teach a patient. How does breathing affect the patient as labor progresses? Why?

2. **Make** flash cards of signs and symptoms of abnormal fears and of rejection.

3. **Explain** what is occurring with each of these symptoms:

lightening

show

ruptured membranes

What nursing observations and care are required with each?

4. **Write** your feelings about each stage of labor.

- Which stage concerns *you* most? Why?
- Which is easiest or most difficult for the mother? The baby? Why?
- What ideas do you have that you want to try in order to give support to a mother-to-be and help the progress of each stage of labor? What is the FHR?

5. **Examine** the chart on the next page. This is a sample of a chalk board that indicates the patients' progress in labor. Note all the abbreviations. Try to figure out what they mean. You will find your laboratory experiences less confusing if you have some idea of the meaning of this. Fill in the chalk board schedule for the patients under "Special questions you want to ask" on page 330. (Use pencil.)

Which of the questions below could you answer by looking at the blackboard?

1. How many patients in labor?
2. What stage is each patient in?
3. Is each a multipara or primipara?
4. What is the FHR?

The following information may be of help in planning for your experiences in the labor and delivery rooms. You may want to make a card with information that is applicable to your hospital situation. You may need to research this.



## DELIVERY ROOM BLACKBOARD SCHEDULE

[illegible]

When receiving a report from the floor nurse:

What specific information do you need about each patient? What should you do during your hours in lab? Sit with one, two, or more patients? Count FHR? Take BP? Time contractions? Observe a prep? Observe a delivery?

### *Special Questions You Want to Ask*

There are some other questions you might want to ask to help you prepare for patient care. What more information do you need to take care of the following patients?

Who to ask for help? When to ask for help (at certain point when timing contractions, rate of FHR, etc.)? When to prepare for the physician and what to do for him or her? What exactly is your responsibility? Assisting? Observing? Doing? What and where do you chart? What, if any, medications are you to give?

Mrs. Jenson, patient of Dr. Green, has one living child and is pregnant for the second time. Her membranes ruptured before admission. Her contractions are effective every 3 min; cervix 6 cm with 70 percent effacement and bloody show.

Mrs. March, room 4, is having contractions every 5 min with bloody show; membranes have not ruptured, and her cervix is 7 cm and 80 percent. She is Dr. Gray's patient. She has six boys (one was stillborn) and is still trying for a girl.

One hour later: Mrs. Jenson: contractions every 2–3 min, cervix 7 cm, 90 percent. Mrs. March: membranes ruptured. Dr. Gray says "complete."

Make up your own situations and fill them in until you can do this easily.

**6. Attend** a group discussion on "Assessing the Patient in Labor." Bring your assessment records of your patient from the beginning of her pregnancy, or from the first time you met her while you were studying antepartal care. You should have a complete antepartal data base. If some students have more complete information than others, compare the value of this information. What more would you want to know before your patient is admitted in labor?

Bring a sample of the admission history form that is used in the labor room of your hospital. Be sure that you know the meaning of each term on the form, such as gravida, para, EDC.

- Discuss the Intrapartal assessment form used in your birthing situation. Do you think of this as just paperwork? Or have you discovered that this is a real part of giving nursing care? Discuss the benefits of having this information. If you find assessment records incomplete, what steps can you take to promote better use of these tools?

**7. Fill in** the chart on page 331 with two or more events in each stage of labor.

## STAGES OF LABOR

Stage	Begins With	Ends With	<i>Hours Duration</i>	
			P	M
I				
II				
III				
IV				

### 8. Plan for a clinical experience.

- ▲ Observe and assist with the admission of patients in labor in the early part of first stage and in the last part of first stage, either multigravida or primipara or both. Record your observations. Bring your record to postconference.
- ▲ Sit with a mother during labor. Select a patient who is in the first stage of labor and stay with her, giving support and nursing care throughout labor. (It would be ideal to do this several times with patients in each stage, but the “stork” may not be too cooperative with your time schedule.) Assist the mother as necessary. Are you minimizing her discomfort? How can you do more? Try it.
- ▲ Observe a patient in each of the three stages of labor. At the completion of each of these observations record your feelings and observations. Bring this record with you to postconference.
- ▲ Give care to a patient in labor with at least three specific nursing actions in mind. Your goal is to minimize fear, pain, and discomfort for your patient. How is your own anxiety level? What can you do to lower it? Yes, get more self-confidence by practicing, practicing, practicing! Bring your recorded observations to postconference.
- ▲ Talk with mothers two to three days postpartum and ask them about their feelings regarding labor and delivery both before and after. What would they like to have a nurse do next time? What was done that was exceptionally helpful to them? How did this delivery compare with the last one? How does she feel about another?
- ▲ Read charts that have been set aside by your instructor. Look for the stages of labor in each. Note the duration of labor, multipara or primipara, amount and kind of analgesia and anesthesia given and during which stages. Note differences in ages of patients, differences in vital signs upon admission and during labor, intake of food and fluids, including history taken at admission, urinary output, and need for catheterization, if any. Look ahead to see the progress of labor. How was the postpartum course? What kinds of nurse’s notes do you see? Routine? Special comments? What would you do if you were caring for this kind of patient? How would you record signs and symptoms of fear and rejection?

- ▲ Teach or coach at least three patients to change their breathing patterns. This should be during the early part of the first stage of labor. Continue to care for and coach these patients as they actually need to change their breathing patterns in order to see how successful your teaching has been. (If you are not able to follow these same patients, try to arrange with a staff member to tell you how successful your patient was in changing her breathing pattern.)
- ▲ Attend at least one class for psychoprophylactic method for childbirth. Ideally you will be able to attend a class with your “case study” parents. Talk with the instructor of the classes and find out what each class includes, such as orientation, breathing patterns, and so on. How many techniques can you assist with? How do these techniques affect the circular effect of fear, pain, and tension?

*[Note: You may combine some of these experiences for one clinical session (for example, sitting with a patient and teaching breathing patterns).]*



## OBJECTIVES

### *Prep, Enema, Catheterization*



7. *Demonstrate a perineal shave and prep on a patient in labor.*



8. *Demonstrate giving an enema to a patient in labor.*



9. *List three ways your catheterization procedure would differ for a patient in labor and why.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** how you will compensate for the active movements of the patient in labor (pain). Will you be tense and in a hurry? Why? Will you be only moderately tense and have adequate time to see a job well done? Why?

2. **Read** in medical, surgical, urological, pediatric, nursing fundamentals, and maternity references on *catheterization, obstetrical prep, enema*.

#### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **List** the differences you expect to encounter when catheterizing a patient in labor compared to catheterizing a nonpregnant patient.

*Patient in Labor*

*Nonpregnant Patient*

Why would catheterization be ordered?

What nursing measures could you take to help a patient void? List those that would be especially helpful for a patient in labor.

#### PROBLEMS FOR SOLVING

- How do you position your nonpregnant patient for an enema? Why?
- How high is the solution level? Why?

- What do you do to get the most cooperation from and the most comfort for your patient?
- What adaptations can you think of that might be necessary because of the pressures of pregnancy?
- What is your greatest concern when shaving a patient? How do you avoid this?
- What more is involved in shaving the perineum than in shaving legs or beard?
- Why is shaving of the perineum necessary? Is it always?
- How does the patient's activity in response to labor influence the problems of shaving?

2. **Write** the differences and the cause of these differences in administering a cleansing enema for a pregnant and a nonpregnant patient. Discuss this with at least one other student or hand in to your instructor for comments.










3. **Role play** giving an enema to a patient in labor. Include what you would say and how you would handle the equipment. Reverse roles. Be free with helpful comments to each other to perfect the procedure.

4. **Plan** for the following clinical experiences.

- ▲ Shave a patient in labor. Think about your feelings. Did you shake? Talk with your patient? You will probably answer "yes" to the first question and "no" to the second, and this is a natural result of your own anxiety. Before you have forgotten how you felt, shave at least two more patients. Compare your feelings and the comfort of these patients with that of the first patient. When you have gained sufficient skill so that you would select yourself from a group as the preferred nurse to perform the perineal shave and prep on yourself (assuming you are the patient), you are probably a success. Maybe this should be your secret goal.
- ▲ Observe the catheterization of a patient in labor.
- ▲ Catheterize one or more patients in labor. Note the physical differences due to pressure of the fetus. How do *you* feel before and then after the procedure? How does your patient feel? Compare differences in this procedure for a patient who is neither pregnant nor in labor.
- ▲ Observe a cleansing enema administered to a patient in labor.
- ▲ Assist or administer a cleansing enema to a patient in labor. Evaluate your skill. How long did it take? Was it successful? Was your patient experiencing minimal discomfort? What do you find easiest to do when administering a cleansing enema? Most difficult? After this evaluation try to administer another enema and again evaluate yourself. How much improvement do you find? Why?

## OBJECTIVES

### *Monitoring a Patient in Labor*

-    10. Differentiate between early and late deceleration of the FHR, including the cause and implications for the fetus and the nurse.
-    11. Given a series of circles (or diameters of circles) representing stages of cervical dilatation, (a) identify the average size of the cervix at the beginning and end of each stage of labor and (b) discuss the relationship and significance of dilatation, effacement, and station.
-    12. Describe in writing and demonstrate timing and recording uterine contractions including duration, intensity, and frequency.

#### A. WHAT'S IT ALL ABOUT! \_\_\_\_\_

##### 1. **Think about** the fetal heart rate as a vital sign.

Visualize pulling a tight turtleneck sweater over your head. Try it for effect! Visualize a lightweight plastic hose looped and twisted over your head as the sweater is pulled over. Compare a “charley horse” to making a fist.

The sweater-neck action is similar to that of the cervix; the plastic hose to the umbilical cord; your head to the babe’s head; the “charley horse” to the uterine contractions. You take it from here!

#### PROBLEMS FOR SOLVING

- What is fetal heart rate in relation to pulse? What does FHR indicate? What is the effect of the heart contraction on pulse? What is the effect of uterine contractions on the FHR? Why?
- Where would you expect to listen for FHR? Why? Would you listen before, during, or after a contraction? Does it matter?
- Would you expect the FHR to be affected more or less during a contraction of a primigravida or a multigravida? Why? What differences do you know between voluntary and involuntary muscles? What is a “charley horse?” How does this compare with uterine contractions? Why?

##### 2. **Try this!** Flex one elbow (raise your forearm) with the other hand on the biceps. Start easy; increase flexion. What do you feel? Muscle getting harder? Beginning to be uncomfortable? Flex harder and hold it in that position while watching the clock for 60 sec. Painful? Why? Now relax your arm. How does it feel? Tired?

Compare this action with uterine contractions of labor (e.g., duration, purpose, force,

voluntary, or involuntary). How would you feel if you could not relax and extend your arm of your own free will? Think about it!

3. **Read** a variety of maternity references on *monitoring*. Compare authors' views. Read your hospital policy book on *routine for timing FHR*.

#### Book

Smith and Duell, 1982, "Monitoring the Fetal Heart Rate," p. 754; Monitoring for Fetal Distress (phonotransducer, ultrasonic transducer, abdominal electrodes, fetal monitor)," p. 758.

#### Journals

"Fear of Floating to Obstetrics," *Nursing* 82, April, pp. 84-85 (FHR and variability).  
Haughey, C. W., "Understanding Ultrasonography," *Nursing* 81, April, pp. 100-104 (what it is, how it works, and patient preparation).  
McDonough, Marilyn, Sheriff, Dee, and Zimmez, Patricia. "Parents' Response to Fetal Monitoring," *MCN*, Jan/Feb 1981, pp. 32-34.

4. **Obtain** a packet of electronic monitoring graphs provided by your instructor. Identify contraction patterns: duration, frequency, and relaxation periods. Identify the baseline fetal heart rate. Look for indications of early, late, or variable deceleration of FHR. What are the nursing implications of each of the above for the baby? For the mother?

What are the advantages and disadvantages of external (indirect) and internal (direct) monitoring?

5. **Explain** the use of a Friedman graph during the first stage of labor.

Use specific data that you have about your patient. Plot all that data on a graph and draw some conclusions about the meaning of the curves, and implications for nursing care.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Measure** the diagrams below and on page 337 with a metric and an inch ruler. Label each with the number of centimeters and the appropriate average stage of labor. Draw circles around them to simulate a cervix.

*Lines Represent Diameters of Dilating Cervix*

\_\_\_\_\_cm

\_\_\_\_\_cm

\_\_\_\_\_cm



\_\_\_\_\_ cm  
 \_\_\_\_\_ cm  
 \_\_\_\_\_ cm

Note that 6 in = approximately \_\_\_\_\_ cm  
 5 in = approximately \_\_\_\_\_ cm  
 3 in = approximately \_\_\_\_\_ cm  
 1 in = approximately \_\_\_\_\_ cm  
 ½ in = approximately \_\_\_\_\_ cm

2. Fill in the graph on page 338 as you observe and care for a patient in labor.

3. Match the following lists for counting FHR:

<i>Patient Condition</i>	<i>Time Interval for Counting FHR and the Rationale</i>
_____ 1. After membranes are ruptured	(a) Count FHR qh because contractions cause stress on fetus
_____ 2. Early period of first stage of labor	(b) Count FHR immediately because the cord may prolapse causing fetal distress
_____ 3. First stage of labor is well established	(c) Count FHR q½h because harder contractions cause more stress
_____ 4. Second stage of labor	(d) Count FHR q5 min because constant hard contractions increase stress.

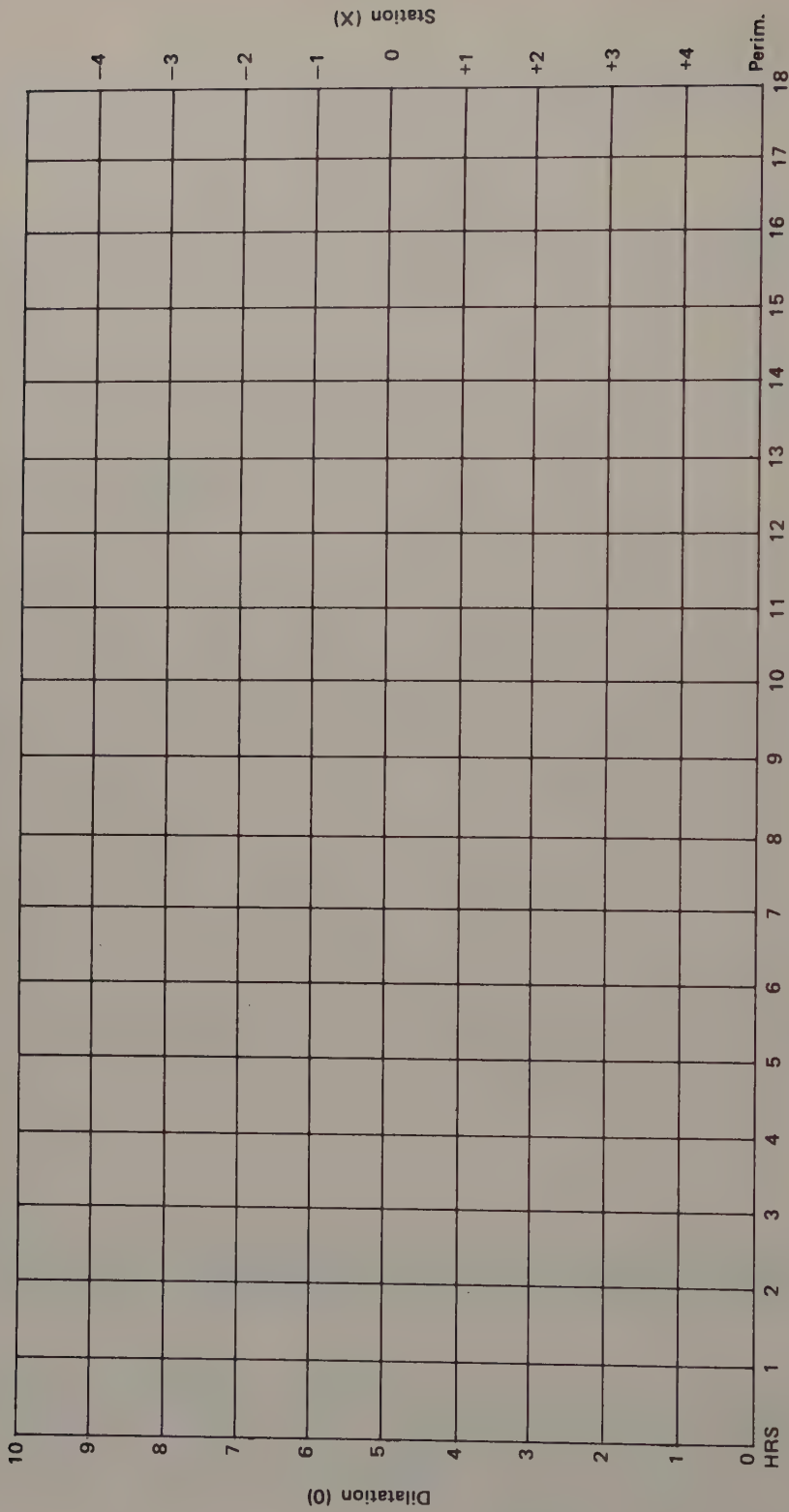
Answers: 1. B; 2. A; 3. C; 4. D.

[Note: Fetal heart rate is the best indicator of the condition of the fetus; careful frequent monitoring of fetal heartbeat is the most important responsibility of the nurse to the infant during labor.]

**ALWAYS IMMEDIATELY REPORT A FETAL HEART RATE BELOW 120 BEATS PER MINUTE OR ANY IRREGULARITY OF BEAT!**

4. Write a thought paper on assessing fetal heart tones: how you feel about it. What if you can't find it or count it? What facial expression will you have? How long will you try? How do you think the mother-to-be will react to your inability to count the FHR of her baby? What will you do to allay her fears? Discuss this with at least one other student or turn it in to your instructor for comments.

# LABOR GRAPH



Time

**5. Plan for a clinical experience.**

- ▲ Listen to and count FHR in prenatal clinic.
- ▲ Observe and listen to FHR before, during, and after contractions.
- ▲ Observe and time uterine contractions. Feel the quality of many contractions. Be sure you can differentiate a “good” contraction from an ineffective and/or a tetanic contraction. Note duration, intensity, and frequency. (This will take at least 15 minutes.) Question your instructor or a staff member until you are sure of what you feel. Palpate for the bladder. If you can recognize the bladder during a contraction on one patient, are you sure that you can find it on every patient? Be sure! How does the size (distention) of the bladder affect labor?
- ▲ Assess the fetal heart rate (FHR) on several patients in labor.
- ▲ Apply a transducer and a tocotransducer to an expectant mother’s abdomen and obtain a clear FHR pattern.
- ▲ Read graphs from electronic monitors. Try to imagine what is going on and what the nurse should do if abnormal readings are noted. Look at the patient’s chart and see what was done and what the outcome was for each patient and her baby.





# OBJECTIVES

## *Anesthesia and Analgesia*



13. *State one advantage and one disadvantage of each of the following types of obstetrical anesthesia in relation to its effect on the fetus and on uterine contractions: epidural (caudal), pudendal, I.V. Pentothal, spinal (saddle), inhalation.*



14. *Given one of the types of obstetrical anesthetics from Objective 13, state when it is used (which stage of labor) and what the implied nursing assessments are.*



15. *List the drugs and their dosages that are most commonly used in your hospital to achieve analgesia, sedation, and tranquility during labor. Indicate which are least hazardous for the fetus.*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the differences between anesthesia and analgesia. Why is one used rather than the other? How does nursing care differ for a patient who is under anesthesia compared to one with analgesia? Why? What is the major difference between nursing care for patients with general anesthesia compared to those with local anesthesia? When, during labor, do you think analgesia might be changed to anesthesia? Why?

Review LEG V-B on Pain. Explain the subjective aspects of pain, and the theories regarding the cause of pain during labor. Why do certain medications work and others do not? Why do certain techniques work for some women and not for others? See Objective 3.

2. **View** audiovisual.

"Anesthesia for Delivery" (LP).

3. **Read** maternity and surgical references and compare patients' reactions to anesthesia and analgesia. Compare the surgical patient's response to anesthesia with that of an obstetric patient.

#### **Journals**

Krohn, Rae, and Woodside, Jack. "Obstetrical Analgesics and Anesthesia: Methods of Relief for the Patient in Labor;" *AJN*, February 1977, pp. 242-245.

Nicholls, Evaline T., Corke, Barry C., and Ostheimer, Gerald, "Epidural Anesthesia for the Woman in Labor," *AJN*, October 1981, pp. 1826-1830.

4. **Consider** the following patient situations and look up the medications you have forgotten. Note that each patient has received a variety of medication combinations that indicate a variety of reactions.

Primipara in first stage of labor; I.M., Demerol and Vistaril.

Multipara in second stage of labor; I.V. Phenergan.

Multipara in first stage; demerol, Phenergan, and scopolamine.

Primipara in late first stage; Demerol, Sparine, and atropine.

Primipara in late first stage; Demerol, Largon, and scopolamine.

Answer the following questions about each of the above situations:

- (a) How may individual differences affect the patient's reaction to drugs?
- (b) Which patients require constant observation? Why?
- (c) Which patients may be loud, but will not remember?
- (d) Which patients will be asleep and cannot be aroused?
- (e) Which may be asleep between contractions but can be aroused?

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a small group discussion on "Analgesia and Anesthesia." Select one of the following topics:

- *Patients receiving caudal anesthesia*

Can you explain the caudal anesthesia procedure to your patient? Role play explanation of caudal anesthesia with another student before trying to explain it to a patient. At what point in labor can caudal anesthesia be administered? Does this differ for a multipara and a primigravida? Why? How can you prevent fear in the mother as the sensations change with the onset of effects of this anesthesia?

- *Patients receiving saddle block*

Discuss the positioning of patients for this procedure. What nursing measures should be taken to prevent continual leaking at puncture site? How would this leakage affect spinal fluid pressure? How would this affect the comfort of the patient? What observations should be made related to bladder functioning?

- *Patients receiving the following types of care:*

Analgesia and local

Analgesia and spinal anesthesia

Analgesia plus inhalation anesthesia

Analgesia only

Natural childbirth

Trilene mask

Discuss how you would approach these patients if you were assigned to care for them during labor and delivery. How will you find out when to ask for help? How will you know when your patient needs more medication for pain? How will you know each of the following: when to help your patient with breathing exercises; if your patient is having “good contractions” or if there are signs of fetal distress?

What other questions do you want answered? This is your chance to go through all the stages of anxiety before actually observing or assisting in labor and delivery. Plan for your instructor to sit in as a resource person. Role play the situations; make them as realistic as possible.

*[Note: Each region of the country and many hospitals within regions have different approaches to labor and delivery. The Objectives in this LEG are general, to prepare you to learn the specific differences as you begin to practice nursing in your own hospital (for example, if it is common practice in your area for obstetrical patients to be anesthetized with caudal anesthetic, plan to observe and assist with this procedure and care for the patient following anesthesia). Observe patients with many different kinds of combinations of analgesia and anesthesia.]*

## **2. Complete the chart on page 344.**

Look back at your chart. Do the answers make sense? Think about it! The effect produced by the drug indicates when it can safely be used. This applies to all drugs. If an anesthetic produces fetal narcosis and inhibits uterine contractions, would you expect it to be given early or late in labor? Why? Are you familiar with the terms *fetal narcosis*, *maternal hypotension*, and *laryngospasm*? If not, look them up. What do they mean to the nurse as he or she makes observations and gives nursing care? Remember your goal—YOU are to be the nurse.

<i>Anesthesia or Analgesia</i>	<i>Effect on Fetus</i>	<i>Effect on Uterine Contractions</i>	<i>Stage Given</i>	<i>Nursing Actions and Observations</i>
Inhalation	Narcosis			
I.V.				Watch for laryngospasm, maternal hypotension
Regional		Retards		
Demerol				
Scopolamine			First	
Phenergan				

Think about this: your patient is medicated appropriately either with analgesia or anesthesia or both. How can you tell that labor is progressing well just by observing that patient? Discuss with your instructor and observe staff members as they observe patients. Question them. Make the most of your time!










**3. Plan for a clinical experience to observe patients in labor.**

- ▲ Observe patients receiving analgesia and anesthesia. Note the stage of labor. Note the sounds each patient makes. Compare the consciousness and actions of patients receiving inhalation, I.V., and regional anesthesia. Which of these women need the most constant and complete care by the nurse? Why?
- ▲ Follow three patients from early labor through each stage (patients receiving different types of analgesia or anesthesia; at least one patient a multipara). Observe the use and effect of analgesia and anesthesia. Listen to reports on each of the patients. Make notes. Compare reports with the blackboard information. Ask questions about what you want to know.



# OBJECTIVES

## *Second and Third Stages of Labor*

-    16. Describe, orally or in writing, at least five (5) physiologic or psychologic changes that would indicate labor is progressing.
-   17. Describe in writing or role play with another student teaching a patient effective breathing patterns and how to "bear down" effectively.
-   18. Describe the nursing action during the second stage of labor with respect to transfer to delivery room, fetal heart rate, assisting patient onto delivery table, coaching patient, birth of baby.
-   19. Describe the third stage of labor.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the different stages of labor. What is the purpose of the first stage? The second stage? The third stage? When the first stage is complete, a new action is required. What signs and symptoms do you see? Hear? Feel?

Two boys are assigned to dig a hole 3 ft wide and 3 ft deep.

Joe Beare knows about bearing down; Bob Nobare does not.

Which will get the job done first and best with the least effort? Why? How can this be taught? When is the best time? When does it become most meaningful to a mother-to-be?

2. **View** audiovisuals.

"The First Days of Life" (20 min, MH).

"Human Birth Film" (LP). Seven types of deliveries.

"Human Reproduction, Third Edition" (22 min, MH).

"When Life Begins" (14 min, MH).

3. **Read** maternity references on *second stage of labor, FHR, delivery-room care; teaching a patient to "bear down."*

### Journal

McKay, Susan R., "Second Stage of Labor—Has Tradition Replaced Safety?" *AJN*, May 1981, pp. 1016–1019.

4. List some appropriate nursing measures to be taken following the rupture of membranes.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Attend a small group discussion on "Giving Support to Patient in Labor." Discuss the following situation. Answer the questions below.

Your report from the head nurse:

Mrs. P.G. has just been admitted to the labor room. She is a primipara; her cervix is about 4 cm dilated. She is not planning to breast-feed her baby. (Her physician's routine order is for Deladumone in delivery room.) You have been assigned to give her an enema and prep. While you are giving the enema and prep, Mrs. P.G. says to you:

- (a) "I definitely do not want to breast-feed my baby. I plan to use those breastlike bottles."

or

- (b) "You know? I'm in a dilemma. I can't really decide whether to breast-feed my baby or not. One day I want to, and the next day I'm not so sure."

or

- (c) "I've changed my mind about breast-feeding the baby. At first I thought I wouldn't want to, but now I am looking forward to breast-feeding. Don't you think that's best?"

What is your course of action? What do you say for each of the patient's responses? What do you do? What will be the result if the patient is given Deladumone in delivery? If not, will she be doomed to engorgement? What alternate approach do you have?

- Role play the following situation. (The purpose of this practice is to anticipate needs and to be prepared!)

Your patient's physician has just come in and asks you to help him with a rectal examination of his patient. What equipment will you need to have handy? Why? What will you do to assist him? What would you do if he said he wanted to do a vaginal examination? What differences are there in your preparation for assisting him?

- Role play teaching a patient to "bear down." At what stage would this be appropriate? What would you do between contractions to help the patient be comfortable and to rest?
- Discuss how you would help a patient with a natural birth when her husband is not there. Be specific about what you would do for each stage because of what is going on and how the patient feels.

**2. Plan for a clinical experience.**

- ▲ Observe the second stage of labor. Note the transitional symptoms from stage one to stage two. Notice the difference in activity and purpose of the mother and the staff during the second stage. What are the major differences?
- ▲ Observe the transfer of the mother to the delivery room. How is the time of transfer decided upon? What does the nurse need to know before the patient is moved to the delivery room? Watch (and assist) how the patient is helped on to the delivery table. What special precautions are taken when positioning her legs? Why? Does coaching of the patient continue? By whom? Note the reaction of each of the persons in the room when the birth is just accomplished. (These questions are leading you in your observations.) This is your chance to be an “outsider looking in.” Have all of your antennae up—looking and listening, and feeling! Next time when you are assigned to help, you may find that you see, hear, and feel less of the *total* action because of your own need to concentrate on what *you* are doing.
- ▲ Observe the changes in breathing and “bearing down” during the second stage of labor.
- ▲ Attend postconference. Discuss your reactions to your first childbirth observation experience. If you haven’t seen an actual delivery, listen to other students as they discuss their reactions. Notice that at this stage the discussion involves feelings of all kinds: relief, joy, hilarity, exuberance, possibly nearing hysteria. Why? Is this normal or abnormal? Before someone gets censored—it is normal! Why not? This is probably the greatest miracle of all—the birth of a new life. You were there! Talk out your feelings and let others state their views. Some of you will be disturbed by what you saw. Talk about it! If you continue to have concerns, talk with your instructor, staff nurses, the physician, or all of them. Then you will be ready for more clinical experiences.
- ▲ Assist with the delivery of a baby from the beginning of the second stage until the mother is taken to the recovery room. Compare your reactions at this time with those of the first time.

**3. Write a thought paper about these feelings and turn it in to your instructor for comment.**

**4. Fill in a “Delivery Room Form” for at least one patient in labor, preferably several (for example, a multipara, primipara, patients with several types of anesthesia). Your instructor will supply this form.**





# OBJECTIVE

## *Oxytocics*



20. Name two oxytocics that may be used during labor to promote uterine contractions and state the average dose, route of administration, and nursing implications.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** actions of medications you have already studied. Why do patients need medications? To make them feel better? To replace some missing chemical? To stimulate or depress some nervous tissue? Yes, all of these. The oxytocics fit into one of these groups. The name may mislead you; therefore, look up this classification and learn the use for patients in labor.

2. **Read** maternity and pharmacology references. Check index for *oxytocics*.

### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a small group discussion on "Patients and Oxytocics" on the following patient situations:

Dr. O. has just examined Mrs. M., who has been in labor 10 hours. Her cervix is 3 cm. Dr. O. orders Pitocin 10 units in 1000 cc D5W. Give at 0.75 cc/min stat.

- Discuss the reasons for administering this drug I.V. rather than I.M. Discuss the infusion pump and the piggyback setup. What does the term half-life of 3 to 6 minutes mean when applied to oxytocics? Discuss the dosage of oxytocics calculated in millunits and the nursing implications for patients receiving these drugs. Why should this patient *never* be left alone? If some abnormal sign occurs, what is the *first* critical nursing intervention to be done? The second? The third? When in doubt do what?
- Discuss the use of prostaglandins (PG) in the induction of labor. What are the differences in route of administration, and untoward effects on mother and fetus? Be aware of new medications as they come into use, and compare them. Make drug cards. Prostaglandins are used in many different situations in which they are the drug of choice.

- What vital sign must be checked before administering one of these oxytocics? If Mrs. M's blood pressure is 140/90 (or higher), what action would you take? Why? Why are oxytocics not given I.V. after the fourth stage of labor?

Mrs. D. has just delivered an 8-lb boy. All is well; Dr. O. orders:

- (a) Ergometrine 0.2 mg 1.M. q4h  $\times$  4 doses or
- (b) Methergine 0.2 mg P.O. q4h  $\times$  6 doses.

What is the action or use of (a) and (b)? What are the advantages and disadvantages of each?

What is your plan of action? Why?







**2. Plan for a clinical experience.**

- ▲ Look at the oxytocics in your hospital on the maternity floor. Note which ones are used most frequently and how they are supplied. What kind of containers, what color, and in how large quantities? Why do you think there might be some stocked on the postpartum floor? Check and see.

**3. Make flash cards with the name of the medication on one side and some of the other information on the other.**

## OBJECTIVES

### *Fourth Stage of Labor and Immediate Care of Newborn*

-    21. Describe orally or in writing the nursing care during the fourth stage of labor (for example, nursing care of the mother immediately following delivery and until she is transferred to the postpartum floor), including tensional relief of mother, physical comfort, and vital observations.
-    22. Describe, orally or in writing, the immediate care and assessment of the newborn with regard to temperature regulation, Apgar scoring, care of the cord, identification, resuscitation, care of the eyes, and mother-infant bonding.

[Note: Consider the infant to be a "standard baby" (for example, vaginal delivery, vertex presentation, birthweight of 2,500 grams or more, Apgar score of 7 or higher).]

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the time immediately following delivery. What does this mean to the mother? The physician? The nurse? The infant? Consider the nurse (you); what are your responsibilities? Obviously the responsibilities vary in different situations. Become familiar with your own hospital routines. Know who is charged with care of the mother, her infant, and other details.

2. **View** audiovisuals.

"The Amazing Newborn" (25 min, RS), 1976.

"Appraisal of the Newborn" (27 min, AJN).

"Newborn" (28 min, UMTV), 1977.

"Care of the Newborn: Forces of Labor and Fetal Heart Rate Monitoring" (TR).

"Care of the Newborn: Respiratory Development" (TR).

"Physical Examination of the Newborn" (TR)

"Human Development: First 2½ Years: #1 Pregnancy, Birth and The Newborn" (CM).

3. **Read** maternity and pediatric references for a variety of routines immediately following delivery.

#### Book

Smith, Duell, 1982, "Newborn Assessment," p. 207.

## B. PUTTING IT INTO ACTION!

### 1. Attend a small group discussion on "Effect of Medications on Mother and Baby and Assessment and Care of the Newborn."

- Review the effect of medications on mother and infant. Discuss your nursing actions because of expected patient reactions during the fourth stage of labor both to the newborn and to the mother.

Mrs. Natur delivered, by natural childbirth, a boy, 8 lb, 2 oz.

Mrs. Amnesa, who received Demerol and scopolamine during labor, delivered a 7 lb, 10 oz girl.

What if Mrs. Natur's baby boy had an Apgar score of 4? What if Mrs. Amnesa's baby girl had weighed 4 lb, 5 oz? How would these conditions affect care of both mother and baby?

Try other possibilities and combinations as you discuss and role play situations in the fourth stage of labor.

- List on a chalk board the physiologic changes that must occur if the infant is to survive? Think about the differences the infant encounters in extrauterine life compared to intrauterine. What must occur in order for him or her to survive?
- Discuss, after you have observed a delivery, caring for a newborn immediately following delivery. Why do you think a knit cap might be placed on a baby's head in the delivery room? What else can be done to conserve a newborn's energy? What is brown fat? Discuss its importance. What are the reasons for taking axillary instead of rectal temperature on newborns?

Discuss in detail how you would go about assessing the condition of a newborn. What guidelines (or forms) are used in the newborn nursery? How can you make yourself consciously aware of assessing a newborn as you give care?

- Evaluate the following patient situation:

Baby boy, 6 hours old in crib, on side, dressed and wrapped in blanket. At change of shift, you are giving report to the oncoming nurse as she makes rounds. A two inch spot of bright-red blood was on the blanket when he was turned over on his back.

What has happened? What would you do? How could this have been avoided?

### 2. Write the rationale for at least six nursing actions from the list on page 353 for both mothers and infants during the fourth stage of labor.



<i>Nursing Actions</i>	<i>Rationales</i>
Check fundus without constant massage	
Lower legs together from stirrups	
Give backrub, change gown	
Check vital signs until stable	
Encourage mother to express any emotion	
Note time of birth	
Position infant's head downward	
Gently rub back of infant	
Suction gently	
Record Apgar score at 1 min and 5 min intervals	
Care for cord, eyes, and identification	

### 3. Plan for a clinical experience.

- ▲ Observe infants immediately following birth. Note the Apgar scores and what nursing measures are taken.
- ▲ Observe mothers during the fourth stage of labor. Note what nursing actions are taken, which are routine department policies, and which are individualized for a particular new mother.
- ▲ Assist with or care for a new mother and an infant immediately following delivery until transfer.



## OBJECTIVES

### *Counting and Monitoring Fetal Heart Rate*



23. *Demonstrate counting fetal heart rate on five mothers-to-be within four points of your instructor four out of five times.*



24. *Describe principles and procedure of external and internal monitoring of the fetus and describe the types of fluctuations.* (E)

*[Note: You must have completed Objective 10 in this LEG, and have answered the self-test correctly before going ahead with these Objectives.]*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about it!** You must have the know-how to count the FHR, know why it is important and where to find it, and in addition, be skillful in finding it, counting, and giving your patient support at the same time. This is not a "once over lightly" nursing action. You must search out opportunities to listen and count many FHR until you are truly skilled. Question what you hear, evaluate it, record, and report it. You are the link between the mother and the physician to prevent complications to the baby. You wouldn't want to be the weak link!

2. **Read** more maternity references to find different authors' views on the how and why of FHR. Look in the index under *fetal distress, signs and symptoms, internal and external fetal monitoring*.

#### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Plan** for a clinical experience.

▲ Count FHR on patients in various stages of labor. Check your answers with the charts and staff members.

▲ Observe fetal monitoring. Discuss what you see and hear in postconference. Compare this method with the counting method in Objective: 23.





## OBJECTIVE

### *Signs of Placental Separation*



25. State four signs of placental separation.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the placenta. What is its main composition? Why? It is a spongy, soggy, bloody organ, which maintains fetal life until birth. What would you expect to happen if it should separate prematurely? Think about the signs and symptoms of hemorrhage. If you are charged with the responsibility of guarding against this complication, you must know what you are looking for, and how to find it.

2. **Read** additional maternity books. Look in index under *placenta—manual, expressed, adherent, Schultz, Duncan*.

#### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Plan** for a clinical experience.

▲ Observe for signs of placental separation. Be sure that you note the normal symptoms that indicate separation if the delivery is normal. Attend postconference. Discuss this phenomenon. Listen to other students, your instructor, and other resource persons as they relate their experiences. Question them about how they observe.

#### PROBLEMS FOR SOLVING

What is the difference to the mother whether the delivered placenta is expressed or manual? What must be done if the placenta is adherent? What can occur if a small piece of the placenta is left in the uterus? Which is most desirable, a Schultz or a Duncan placenta? Why? You may need to research this.



# LEG VIII-A

## Labor and Delivery

### HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VIII-A are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the "doing" Objectives. Use a separate sheet of paper for these answers and then use the answers in clinical or campus lab for your own evaluation.

#### *Objectives*

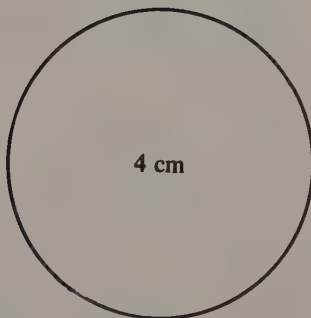
#### *Questions*

- |   |  |
|---|--|
| 1 | 1. Describe in detail or summarize by trimesters the fetal development, including length, weight, and one or two characteristics of the fetus.   |
| 2 | 2. Complete an assessment form as you admit a patient in labor. Are you satisfied with your nursing care and record keeping?   |
| 3 | 3. List five specific actions to minimize fear, pain, and discomfort during labor.   |
| 3 | 4. Describe three psychoprophylactic techniques used for relaxation.   |
| 4 | 5. Which of the following statements by a patient in labor would make you think that she had an accepting attitude? Which might indicate fear or rejection?<br>(a) "This is my first baby, and I'm kind of scared, but maybe it won't be too long."<br>(b) "How soon do you think I'll have my baby? This pregnancy has seemed so long and uncomfortable, I'll be glad to have it over. Can't you do something to hurry it along?"<br>(c) "I dream at night that the baby's deformed."<br>(d) "Hurry with the medicine. I just can't stand the pain any longer. This is so bad, it must be another boy."<br>(e) "Stay with me, I just can't bear to be alone." |
| 5 | 6. Match the "Events" with the "Times of Occurrence."  |

<i>Event</i>	<i>Time of Occurrence</i>
_____ 1. Complete dilatation of cervix	(a) Stage I beginning
	(b) Stage II beginning
_____ 2. Delivery of baby	(c) Stage III beginning

- |  |                        |
|--|------------------------|
| _____ 3. Rupture of membranes          | (d) Stage IV beginning |
| _____ 4. First true contractions       | (e) Stage I end        |
| _____ 5. Delivery of placenta          | (f) Stage II end       |
| _____ 6. Discomfort in small of back   | (g) Stage III end      |
| _____ 7. Begin "bear down" action      | (h) Stage IV end       |
| _____ 8. Transfer to postpartum unit   | (i) Stage I during     |
| _____ 9. Schultze's/Duncan's mechanism |                        |
| _____ 10. Recovery from anesthesia     |                        |
| _____ 11. Vital signs stable           |                        |
| _____ 12. Emotionally exhausted        |                        |

- 6            7. State the purposes and length of time of each stage of labor and the muscle groups involved (for example, abdominal or uterine).
- 7            8. Prepare a list of steps you plan to take when you prep a patient in labor.
- 8            9. List the steps you would take to administer an enema to a patient in labor.
- 9            10. What changes would you make in your catheterization plan for a patient in labor?
- 10          11. Differentiate between early and late deceleration of the FHR, including the cause and the implications for the fetus and the nurse.
- 11          12. (a) Label the circles below according to the beginning and end of the first stage and the beginning of the second stage of labor.  
               (b) What is the relationship or significance of dilatation, effacement, and station?



circle a

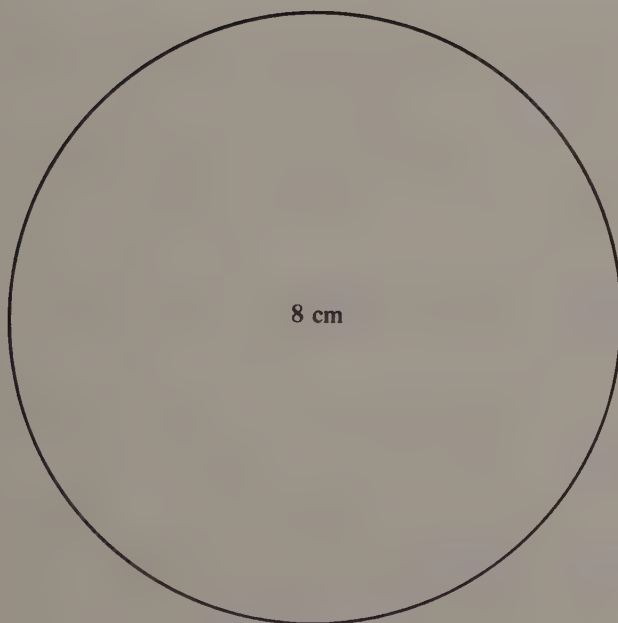


circle b

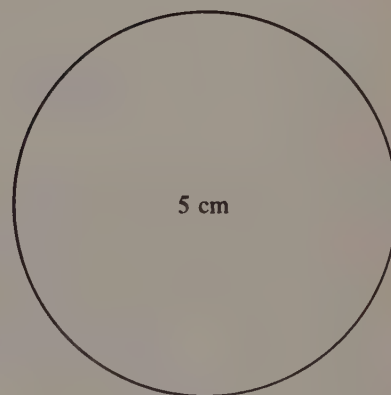




circle c



circle d



circle e

12

13. Explain the relationship of duration, intensity, and frequency of contractions to the progress of labor and the effect on the mother.

13, 14

14. Fill in the chart below on obstetrical anesthetics.

	<i>Inhalation</i>	<i>I.V.</i>	<i>Regional</i>
Effect on fetus			
Effect on contractions			
Stage of labor used			
Nursing observations and actions			

15. List the drugs and their dosages that are most commonly used in your hospital to achieve analgesia, sedation, and tranquility during labor. Indicate which are least hazardous for the fetus.
16. Write five physiologic or psychologic changes that occur as labor progresses.
17. List items to include when teaching a patient how to "bear down" effectively and how to achieve an effective breathing pattern.
18. Describe the nursing actions during the second stage of labor with respect to transfer to delivery room, FHR, assisting patient on to delivery table, coaching the patient, birth of the baby.
19. Describe the third stage of labor.
20. List two oxytocics used to promote contractions; state the average dose, route of administration, and nursing implications of each.
21. Describe the nursing care of the mother during the fourth stage of labor, including handling tensional relief of mother, physical comfort, vital observations.
22. Describe how you would assess and care for a newborn including:  
temperature regulation  
Apgar scoring  
care of the cord  
care of the eyes  
mother-infant bonding
23. Describe the nursing care of the infant from birth until transferred to the newborn nursery.
24. Write your strengths and weaknesses when counting FHR.
25. The electronic monitoring of fetal heart rate:  
(a) Is done internally before the membranes are ruptured. T or F.

- (b) Is continuously done throughout labor. T or F.
- (c) Records continuous patterns with changes in maternal position. T or F.
- (d) May use ultrasound. T or F.

25

26. You are charged with watching for signs of placental separation while the physician is caring for the infant. Which of the following indicate placental separation?
- (a) Protrusion of several more inches of umbilical cord.
  - (b) Uterus gradually descends farther into pelvis.
  - (c) Blood suddenly gushes from vagina.
  - (d) Uterus becomes rounded and more firm.
  - (e) Clots of blood from vagina.
1. All of these
  2. (b) and d)
  3. (a), (c), and (d)
  4. (a), (d), and (e)





## LEG VIII-B

### Postpartum Care

# WHAT WILL I LEARN?

The new mother and her new baby have gone through a crisis situation. A loss has occurred for both of them; the mother loses the fetus and the baby loses his or her safe, warm home. Keeping this in mind, you will be able to practice your skills of giving support and assessing the situation and planning nursing interventions that will help the new family have a good beginning. For this LEG the crisis aspect is in the background and the **regulatory** process should be your main emphasis.

Delivering a baby and having this new person to incorporate into a home are enormous changes for a woman. With our changing culture, the home to which the mother returns is not often supplied with sources of help or reinforcers that will allow her to slowly adapt to being a mother and to feel successful. In addition, she may have brought with her from childhood little or no experience in handling and caring for infants, but she may have great expectations of how a mother should act and feel. Now, to be confronted with total responsibility for this helpless baby when he or she is only from three to five days old is really an awesome thought.

You will learn to give physical care as you watch the regulatory processes begin to restore the mother to her nonpregnant state. Her reproductive system almost immediately begins its involutional processes. Her newborn's regulatory system is erratic at first, then soon gets into gear to make the monumental first year the success it usually is. You will learn how to help the mother be successful as she cares for her baby and gains "mothering" skills, and that, in turn, will help the baby thrive. You will include the husband and father in your teaching, and thus discharge a family ready to assume its new role.

**The Content of the Objectives for LEG VIII-B is:**

- Postpartum Assessment and Care (1-4)
- Characteristics of the Newborn (5)
- Breast- and Bottle-Feeding (6-8)
- Caring for the Normal Newborn (9-12)
- Assessing a New Parent's Feelings and Attitudes (13-18)
- Teenage Pregnancy, Single Mother, Birth Control (19-21)
- Helping a Family Deal with a High-Risk Neonate (22)

### WHAT'S AHEAD IN LATER LEGS

Complications that may occur in the postpartum period will be studied in LEG XI-A, as will care of the premature infant and newborns with complications. The knowledge of typical postpartum and newborn care will serve you well in LEG XI-A.



## OVERVIEW OF LEARNING EXPERIENCES IN LEG VIII-B

<i>Objectives</i>	<i>Campus Lab Practice</i>	<i>Group Discussions/Lectures</i>	<i>Clinical Focuses</i>
1. Physiologic changes postpartum 2. Nursing care plan for a postpartum patient 3. Nursing actions for postpartum problems 4. Postpartum checks and peri care 5. Characteristics of a normal newborn	B4. Teaching peri care B5. Role play postpartum check	B2. Normal postpartum physiologic changes GES Objective 4	B7. Talk with patient postpartum Care for newborns Care for postpartum patients Do postpartum checks and peri care
6. 7. Breast- and bottle-feeding 8. Medication to suppress lactation	B2. Teaching about infant feeding	B1. Characteristics of a normal newborn	A3. Observe through a nursery window B3. Observe in newborn nursery Assessing newborns Make rounds with a nursery nurse
9. Use of Apgar scoring 10. 11. Admitting, assessing, and caring for a normal newborn 12. Teaching newborn care to a mother	B2. Assessing a newborn with head-to-toe tool Role play teaching care of a newborn	B1. Helping mothers breast-feed A2. Lecture by La Leche League member	B4. Observe nurse or person from La Leche League teach a mother to breast-feed Find out about formulas and bottles used in your hospital Observe mothers/babies breast-feeding Assist with and teach breast- and/or bottle-feeding
13. "Mothering" and techniques of maternal-infant bonding 14. 15, 17, 18. Assessing attitudes and emotional needs of the new mother 16. Observations for "blues" and psychoses		A6. Helping mothers with new babies	B3. Care for babies in newborn nursery Discharge at least one baby Observe and do procedures in the newborn nursery Observe care of neonate with jaundice Observe and do gestational assessment
19. Talking with single mothers 20. Teenage pregnancy 21. Birth control		B5. Postpartum problems	B6. Talk with multipara patients Observe, listen, and help mothers Talk with new fathers Read charts Take baby to mother Use an assessment tool
<i>Extra added objectives:</i> 22. Needs of a family faced with the loss of a newborn, a premature infant, or infant with a physical anomaly		A4. Lecture on care of the single mother or Planned Parenthood B2. Therapeutic communication with a teenage mother B1. Helping grieving parents	B4. Care for one or more single and/or teenage mothers B2. Visit the mother of a premature infant Talk with the mother of a stillborn or newborn with a physical anomaly

# NEW TERMS AND ABBREVIATIONS

acrocyanosis  
ambivalence  
anaclitic depression  
caput succedaneum  
cephalhematoma  
colostrum  
diuresis  
engorgement  
fontanel  
hematoma  
hyperbilirubinemia  
icterus neonatorum  
involution  
kernicterus  
lanugo

lochia { alba  
          rubra  
          serosa

LGA neonate

molding  
Mongolian spots  
neurotic mechanism  
physiologic jaundice  
puerperium  
scarf sign  
SGA neonate  
subconjunctival hemorrhage  
surfactant  
sutures  
trichomonas vaginalis  
vernix caseosa

# OBJECTIVES

## *Postpartum Assessment and Care*



1. Describe the physiologic changes that occur in the following systems postpartum: reproductive, vascular, endocrine, G.I., urinary, abdominal musculature.



2. Write and implement a nursing care plan for a normal postpartum patient using the five steps of the nursing process.



3. Describe, orally or in writing, nursing measures for each of the following conditions: hemorrhoids, engorgement, episiotomy, urinary retention, constipation.



4. Demonstrate carrying out postpartum checks and teaching a new mother to care for herself according to hospital routine to provide clean, dry area for healing to decrease the risk of infection and provide comfort for the patient.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the period after childbirth, postpartum, puerperium. What does the new mother feel? Relief? Satisfaction? Anxiety? Anger? Pride in accomplishment? Guilt? Some, none, or all of these? It depends on who the patient is at this point in time, a period when the new mother's body is undergoing change and her mind is adjusting to a new situation. What are the needs of this woman as she begins to take up the activities of daily living as a new mother? How can you help her, beginning with the first day after delivery until she is discharged?

2. **View** audiovisuals.

"Now That You're Postpartum," (21 min, PMF).

3. **Read** maternity and pediatric references on *postpartum assessment, physiologic changes*.

#### Books

Atkinson and Murray, 1983, pp. 25; 128–131.

Blondis and Jackson, 1982, Chapter 4, "Pediatrics and Parenting."

Butnarescu, Glenda F., and Tillotson, Delight M., *Maternity Nursing, Theory to Practice*, New York, Wiley, 1983, Chapter 19, "Maternal Recovery from Pregnancy and Childbirth," p. 413.

Robinson, Corinne H., Lawler, Marilyn R., and Garwick, Ann E., *Case Studies in Clinical Nutrition*, New York: Macmillan, 1982, 29, "Pregnant Woman with Milk and Egg Allergy."

Smith, and Duell, 1982, "Postpartum Assessment," p. 201; "Recommendations for Postpartum Clients (teaching)," p. 204.



## Journal

Kiker, Rosemary, and Wilkerson, Betty, "8-Point Postpartum Assessment," *Nursing* 73, May, p. 56 (an excellent classic).

**4. Memorize** the chart below. You will find some differences in your readings about the postpartum checks, but generally the steps are the same. The important point here is to establish a routine so that you do not forget any part of it. The first hour after delivery is a very critical period for the new mother, and is referred to as the fourth stage of labor by some authors. It is a time when nursing care and observation are extremely important; the mother is usually completely dependent on the nurse during this period; don't fail her! See Objective 4 in LEG VIII-B.

Palpate fundus Slight massage of fundus; observe for bladder distention Express clots from uterus Measure fundus in relation to umbilicus Inspect perineum for discoloration and swelling Inspect and change peri pads Record BP and P Offer food and fluid if allowed Include comfort and safety measures
--

- How often should this check be done the first hour? How often during the second and third hour if the postpartum course is normal?  
What will you tell the mother about what you are doing? How can she help you make the most accurate assessment of her condition?
- How can the nurse distinguish between bright bleeding and lochia rubra during the early postpartum period?
- What observations of the episiotomy may be made? How can the nurse detect development of a hematoma during the early postpartum period?
- Plan how you would observe, chart, and report if you were asked to do a postpartum assessment for two patients? Assume you have 15 minutes.

emotional status

breasts

Homan's sign

uterus

bladder

lochia

episiotomy

bowel function

5. **Evaluate** the Postpartum Peri Care Chart below. Use it as you learn to give peri care and learn how to teach your patient.

POSTPARTUM PERI CARE	
BEFORE AMBULATION	
<i>Purpose</i>	<i>Scope</i>
Cleanse	Vulva
Heal	Perineum
Comfort	Anal region
<i>When</i>	<i>Why</i>
Morning care	Prevent infection
After each voiding	Provide view of area
After each b.m.	Observe lochial discharge
<i>Who</i>	
<i>Nurse</i>	<i>Patient</i>
Doing and teaching	Receiving and learning

AFTER AMBULATION	
<i>Purpose</i>	<i>Scope</i>
Same as before	Same as before
<i>When</i>	<i>Why</i>
Same as before	Same as before
<i>Who</i>	
<i>Nurse</i>	<i>Patient</i>
Observe q a.m.	Doing with supervision
Note healing and lochia (before bathing)	

- **Compare** the observations and principles of asepsis that would be applicable when giving perineal care for a postpartum patient with those that would be applicable when changing a dressing on a surgical patient.

<i>Observations</i>	<i>Principles of Asepsis</i>
Peri care	
Surgical dressing	

## B. PUTTING IT INTO ACTION!

1. **Identify** the areas most likely to be a problem during the postpartum period for a new mother, using the National listing of Nursing diagnoses and the NCP form on a postpartum patient. (See Atkinson and Murray.)
2. **Attend** a group discussion on "Normal Postpartum Physiologic Changes."
  - Discuss the normal consistency and placement of the uterus immediately after delivery, 12 hours after delivery, and 1–8 days postpartum.
  - Discuss how involution occurs.
  - What are the changes in vital signs that are normal postpartum adaptations?
  - Describe three types of lochia. When does each occur?
  - Discuss physiologic changes postpartum. (See Objective 1.)
3. **Find out** the policy for perineal care at your hospital. Observe the procedure as it is given to a patient.

Is the procedure "clean" or "sterile?"

Is equipment disposable or not?

Cotton balls, cloth, sponges, or tissues?

Mild soap or detergent?

4. **Role play** teaching a patient how to do her own peri care. *To teach it, you must know how to do it correctly and with specific rationale.* Compare the procedure for peri care according to your hospital procedure.
  - Role play explaining or teaching a new mother about the normal changes in lochia (be sure she knows what lochia is), normal involution of the uterus, and return of menses.
5. **Role play** in campus lab how to do a postpartum check. Use the list in A-4.
6. **Label** the following actions to indicate which should occur during (a) the early postpartum period (1 to 2 days) and which during (b) the remaining hospitalization of a new mother, and write your rationale.

\_\_\_\_\_ Insure several long rest periods

\_\_\_\_\_ Check lochia

\_\_\_\_\_ Push fluids

\_\_\_\_\_ Take vital signs

\_\_\_\_\_ Assist to void

\_\_\_\_\_ Check level of fundus

- |  |  |
|--|--|
| _____ Teach self-care                          | _____ Check perineum                         |
| _____ Plan for care of mother and baby at home | _____ Observe for urinary retention          |
| _____ Give peri care                           | _____ Supervise self-care                    |
| _____ Note breast changes                      | _____ Help mother relive delivery experience |

What would you think might exist if, when you palpated the fundus, it was to one side?

**7. Plan for a clinical experience.**

- ▲ Talk with patients who have had both vaginal deliveries and cesarean sections. What were their feelings about each? What kinds of nursing care helped them most?
- ▲ Care for newborn babies delivered both ways. Compare their Apgar scores and progress before discharge.
- ▲ Give care to a postpartum patient, including peri care and/or teaching a mother how to do this herself.
- ▲ Care for a patient during pregnancy, labor, and postpartum, establishing rapport, making observations, minimizing fear, pain, discomfort, and possible complications. Write an NCP.

*[Note: This experience may not be possible for one patient through pregnancy, labor and delivery, and postpartum. If not, care for a different patient during each stage.]*

- ▲ Carry out a postpartum check of several patients. Pay special attention to giving maximum care during brief contact with the mother to allow her much-needed rest.





# OBJECTIVE

## *Characteristics of the Normal Newborn*



5. Describe, orally or in writing, five physical and behavioral characteristics of a normal newborn, including:

*heart and respiratory rates (vital signs)*

*circulation (differences between fetal and newborn)*

*periods of reactivity*

*eight major reflexes*

*blood values*

*temperature regulation, heat production, and effects of cold stress*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** your first reaction to caring for a newborn. Are you a little fearful of being responsible for such a tiny new being? Are you excited and anxious to cuddle the baby? Do you think of the “gooey” traumatic first few hours? Your feelings are probably somewhere in between all these. Each has a place. For now you are free to observe and to learn the normal behaviors of a newborn; later you will be responsible for the nursing care. Enjoy this time and observe as many newborns as possible.

### 2. **View** audiovisuals.

“Your Baby’s First Days” (21 min, PMF), 1980.

“Amazing Newborn” (25 min, PMF).

“Hyperbilirubinemia in the Newborn” (38 min, RS), 1983.

“Newborn Series: The Nature of Things” (28 min, UM), 1979.

3. **Talk** with a nursery nurse or your instructor. What does he or she look for in the normal newborn? List the descriptions.

- Go to the nursery (outside the window). What do you see? Write down the similarities and dissimilarities as you observe three babies during morning or evening care.

4. **Read** one or more references on maternity and pediatric nursing. Look in the index under *neonate, newborn*.

Appraisal (physical assessment) is part of the nursing process. Use this opportunity to review and to build on your knowledge and skills in carrying out the nursing process.

Review LEG II-C on the normal infant.

## Books

- Hymovich, 1982, Guide 4, "The Newmans' First Baby; Part 1. Newborn Infant Appraisal and Parent Guidance" (complete the sections of the guide that are appropriate for Objective 5. You will be referring back to other parts as you study at later Levels).
- Whaley, Lucille F., and Wong, Donna L., *Nursing Care of Infants and Children*, St. Louis, Mosby, 1979, Chapter 8.

**5. Write the causes and implications of physiologic hyperbilirubinemia of the newborn. What are the nursing actions or responsibilities in order to prevent complications?**  
Be sure you know the implication of kernicterus, exchange transfusion, phototherapy, and jaundice.

**6. Define phenylketonuria.**  
Describe the testing procedure used to diagnose this condition.  
What are the implications of a positive test result to the infant? The parents? The nurse?

**7. Identify some common parental concerns regarding their newborn.** For example, list three reasons for having a circumcision performed and three reasons that parents may choose not to have a circumcision performed on their newborn.

**8. Describe the following reflexes of the newborn:**

Moro

Tonic neck

Palmar and plantar grasp

Stepping

Placing

Rooting

Sucking

Blink

Bring this descriptive list to your group discussion.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

### 1. **Attend** a group discussion on “Characteristics of a Normal Newborn.”

To prepare for this group complete the following data and bring your findings to share with the group.

- (a) Describe the periods of reactivity that a newborn goes through, especially during the first six hours.
- (b) What are the major differences between the fetal and newborn circulation?
- (c) List eight major reflexes present at birth and describe how they may be tested.
- (d) List two laboratory tests done on the normal newborn and two medications routinely given in the first eight hours.
- (e) What is the importance of heat production, temperature regulation, and effects of cold stress on the newborn?

### 2. **Write** your description of the normal newborn for your instructor to see. Use brief phrases—not an essay. Justify your description.

#### COMMENTS ON ASSESSMENT OF NEWBORN

*Careful nursing observations will never be replaced by monitors. A thoughtful alert nurse can see a change in an infant's condition before a monitor will indicate a problem. Don't make the mistake of depending on the monitor. Try to beat it to a problem. Many conditions cannot be detected by a monitor. The condition of a normal newborn can change rapidly. Never assume that all is well until you have assessed the situation carefully. And frequently. You are responsible!*

### 3. **Plan** for a clinical experience in the nursery.

- ▲ Repeat your observations of babies a few hours old, 1 day old, several days old. What is their color when crying? Not crying? How does the head feel? Look? How is it shaped? What is the relationship of the head to the body in size? Look at the eyes, describe the color, movement. What is the average weight and length? Do you observe any reflexes? How do you take the temperature and pulse of a newborn?
- ▲ Make at least two physical and behavioral assessments of babies in the newborn nursery. Compare your assessments with those of other students and staff.
- ▲ Observe and make rounds with an experienced nursery nurse. Make your own observations. Ask questions. Begin to be a very careful alert nurse.



## OBJECTIVES

### *Breast- and Bottle-Feeding*



6. *Describe in writing and demonstrate teaching and assisting a new mother to breast-feed her baby, maintaining comfort of the mother and ability to suck by the infant.*



7. *Demonstrate teaching and assisting a new mother to feed her baby formula, maintaining comfort during feeding and increasing the infant's ability to suck.*



8. *Give two examples of hormones used to suppress lactation and state the route of administration, side effects, and when these are administered. A list will be provided by your instructor.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the process of lactation. Normal or abnormal? If a new mother elects not to breast-feed her baby, how can lactation be stopped? Why is it desirable to use hormones to suppress lactation? Why is it important to know the mother's preference at the time of delivery?

How do you feel about teaching breast-feeding to a new mother? Are you experienced? How can you gain experience? What are your existing attitudes? Do they need changing? Attitudes—yours, the new mother's, and those of persons who influence her—play a large part in the success of breast-feeding.

2. **Attend** a large group session given by a La Leche League member.

3. **View** audiovisuals.

"Learning to Breastfeed" (22 min, PMF).

"Breastfeeding—A Practical Guide (I and II)" (15 min each, AJN, LLLI), 1982.

"Breastfeeding: A Special Closeness" (23 min, AJN).

"Preparing Your Baby's Formula" (20 min, RS), 1979.

"Should I Nurse My Baby?" (22 min, MD), 1982.

"Breast Feeding" (8 min, LLLI), 1981.

"Carbohydrate Intolerance in Infancy" (16 min, RS), 1982.

"The Nature of Milk" (10 min, RS), 1981.

"Preparing Your Baby's Formula" (12 min, RS), 1980.

"Breast-Feeding: The Natural Way" (14 min, RS).

"By the Pictograms (Formula Preparation)" (9 min, RS), 1983.

"Bottle-Feeding Your Baby" (TR).

"Breast-Feeding Your Baby" (TR).



#### 4. Read maternity references on *breast-* and *formula-feeding*.

##### Books

Bodinski, pp. 283–286, “Diet Considerations Throughout the Life Span,” (Infancy); pp. 295–297, “Lactation.”  
Green, Marilyn L., and Harry, Joann, *Nutrition in Contemporary Nursing Practice*, New York, Wiley, 1981, “Nutritional Requirements During Lactation,” p. 421. (“Breast milk is the best for a potentially allergic infant.”)  
*The Womanly Art of Breast Feeding*, Minneapolis, LLLI (paperback or hardback).

##### Journals

Chapman, N. L., and Barnett, D. C., “In Defense of Bottle-Feeding,” *JPN*, June 1982, p. 24 (discusses formulas, feeding positions, bottle preparation, and common feeding problems).  
Countryman, Betty Ann, “Breastfeeding: Helping the Mother Get Started,” *Nursing Care*, September 1976, p. 24.  
Hubbard, Ellen, “How We Solve Breast-Feeding Problems,” LLLI reprint.  
Rhodes, C., “The Benefits of Breast-Feeding,” *JPN*, July–August 1982, p. 19 (discusses composition of breast milk, immunological protection, nipple care, and common complications).  
Riordan, Jan and Riordan, Michael “Drugs in Breast Milk,” *AJN*, March 1984, pp. 328–332. (clear chart on drug effects on infant).  
Schiegel, Ann M., “Observations on Breast-Feeding Techniques: Facts and Fallacies,” *MCN*, May/June 1983, pp. 204–208.

#### 5. Write or discuss answers to the following questions. You will need to know the answers to these questions as you help your patients.

- (a) What is the La Leche League? How can you find out?
- (b) What are the advantages of breast-feeding to the mother? Baby?
- (c) What makes a baby sleepy instead of hungry? How can you wake him or her up?  
What can the mother do with a sleepy baby? Is this important?
- (d) List the stages of lactation and describe what influences the promotion of successful breast feeding.  
How can this influence the letdown reflex?  
How do attitudes influence maternal tension and the letdown reflex?
- (e) What would you do if the baby is screaming when you bring him or her to the mother?
- (f) What if the mother expresses concern that her baby is not getting enough milk?  
How can you tell if the baby is getting enough fluid?

If you need to give water as a supplement to the breast milk, how would you give it? Why?

- (g) What are the advantages of using both breasts for each feeding to the mother? The baby? Why?
- (h) How does positioning of the infant and mother differ for breast- and bottle-feeding? Why?  
What may be the result of giving a breast-feeding baby a bottle? Why?
- (i) Why is oxytocin (Syntocinon) given to a lactating mother by nasal spray? How does this differ from an oxytocic drug given during delivery? See Objective 20, LEG VIII-A.
- (j) What are the four phases of mother-infant attachment? Why is early contact with the infant important?
- (k) List two examples of hormones used to suppress lactation. Include:
  - Route of administration
  - Side effects
  - How long the drug is usually given

How do you feel about breast-feeding now? If your attitudes were negative to start, have they changed? If not, think twice about helping a mother to breast-feed unless you are certain you can present a positive attitude. We can't all do everything, you know! Ask a "pro-breast-feeding" nurse to help these mothers.

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

**1. Attend** a small group discussion on "Helping Mothers Breast-Feed." Discuss your opinion of the article, "How We Solve Breast-Feeding Problems." You may want to have a conference again, with this article as resource, *after* you have observed or assisted a new mother to nurse her baby.

- Role play responses to the following patient statements:

"I don't know how to feed my baby."

"Why must I stay in bed to nurse?"

"How will I know when my milk comes in?"

"My breasts are so sore I could hardly stand to nurse him this afternoon."

"My sister said she used a breast shield when she nursed her baby."

- List and discuss the advantages for allowing the baby to nurse immediately or within one hour following delivery, and then on demand. Add more rationales from your readings.

*Advantages for the baby:*

*Advantages for the mother:*

How does the policy of allowing the baby to nurse on demand affect hospital routines? Routines or problems, which will it be? How will you ever know unless you try?

**2. Practice** (in campus lab or at home) teaching a new mother about infant feeding: **REMEMBER TO WASH YOUR HANDS.**

- Teaching a new mother how to grasp her breast (two-finger technique) to form the nipple and then hold the baby's chin extended to keep the nipple against the roof of his or her mouth. How? Role play, with another student or yourself, for the two-finger grasp. Borrow a baby to get the feel of extending the chin.
- Feed a baby (borrowed if necessary) formula. Try different positions. Burp the baby. Does the baby seem to do better in an upright position or a flat position? Why? Do you find it easy to cuddle the baby while feeding him or her?
- Bathe, diaper, and give care as you role play your teaching.

**3. Check on** the type of bottle used in your hospital. Compare three or four different types of bottles and nipples. Read the directions and the objectives or rationale for the differences in size and shape. Check the nipple openings, large or small, one or many, slits, or pinholes. Have you tasted a nipple? Try one. Like the flavor?

**4. Plan for a clinical experience.**

- ▲ Check the charts of breast-feeding mothers. Note medication received during labor and date of delivery. How do you expect this medication to affect the babies, if at all?
- ▲ Observe breast-fed babies. Scrub and gown. Check infants' charts; note Apgar scores; look at these babies. Change diapers; note the type of stools, voiding, rashes; check vital signs.
- ▲ Observe a nursery nurse assisting a mother to breast-feed her baby. Notice the number of times the baby has been taken to breast, the attitude of the mother, how she handles her infant and positions herself, and the baby's sucking ability and interest. Listen to both the nurse and the patient.

- ▲ Observe a new mother who is having “problems” with breast-feeding. What cause do you see? Sleepy baby? Engorgement? Tense mother? Some wrong attitudes? Jot down some ideas you would like to try for improving the situation. Discuss these in postconference.
- ▲ Observe two new mothers, (1) a primipara and (2) a multipara who have breast-fed their babies successfully before. Compare the way these two women approach breast-feeding. How can you help? What if the multipara patient has not had a successful breast-feeding experience before?
- ▲ Observe patients feeding their babies formula. Help them. Observe the condition of their breasts during bath time. Listen as they discuss and question care of their babies.
- ▲ Read charts for orders of medications to suppress lactation. Observe patients. Look for side effects, and how and when medication is given.
- ▲ Assist and teach a new mother to breast-feed her baby. Document the mother’s ability.
- ▲ Assist and teach a new mother to bottle-feed her baby. Document the mother’s ability to handle and hold her baby.
- ▲ Attend postconference.

Evaluate and discuss the following charting:

Mother tense and unsure of self. Instructed in care of handling baby.  
 More comfortable in semi Fowler’s position nursing.  
 Baby nursing well now.

Mother expresses fears of inadequacy at home.  
 Suggested that if problems arise she contact Le Leche League for help.

Discuss your own charting.


























# OBJECTIVES

## *Caring for the Normal Newborn*

*[All of the Objectives below relate to care of the neonate from admission to the newborn nursery until discharge from the hospital.]*

-   9. Describe, orally or in writing, the Apgar system of evaluation of the newborn.
-    10. Demonstrate or role play admitting a normal newborn to the nursery, including: administering vitamin K, weighing, assessing condition (skin, cord, vital signs, color), gestational assessment, immediate care, and charting.
-    11. Demonstrate or role play caring for a newborn infant following admission to the nursery.
-    12. Demonstrate teaching a mother about newborn care by preparing and using a teaching and discharge plan for baby and mother. 
-   
-   
-   

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** the newborn from the standpoint of the nursery. What is this strange place? How can it be safe for a tiny new human being? What guides the nurse's approach to each new baby? The Apgar scoring method is a major guide. Become thoroughly familiar with it. Think about how you need to adapt the care for babies who are having problems and who have a low Apgar score. Think about the trauma of birth, and the hugeness of the world compared to the uterus. How can you make these first few days less frightening and traumatic?

2. **View** audiovisual.

"Nicholas and the Baby" (23 min, AJN,UM), 1981.

3. **Read** maternity and pediatric references on *newborn behavior, characteristics, care, circumcision, suctioning, PKU*.

#### **Books**

Butnarescu and Tillotson, 1983, Chapter 17, "The Neonate," p. 349.

#### **Journals**

Capobianco, Julie Adams, "How to Safeguard the Infant Against Life-Threatening Heat Loss," *Nursing* 80, May, pp. 64-67.

- Enzenauer, Robert W., and Smith, Anthony G., "Circumcision: Needless Risks, No Medical Benefits," *RN*, January 1983, pp. 99-100.
- Luddington-Hoe, Susan M., "What Can Newborns Really See?" *AJN*, September 1983, pp. 1286-1289.
- Porth, Carol, and Kaylor, Leone E., "Temperature Regulation in the Newborn," *AJN*, October 1978, pp. 1691-1692 (good).
- Quistad, Chris, "Getting Mothers and Newborns Off to a Good Start," *RN*, April, 1984, pp. 39-48. (Assessment and postpartum teaching for mother and baby. Many pictures.)
- Scharping, Earlene M., "Physiological Measurements of the Neonate," *MCN*, January/February 1983, pp. 70-73.
- Sullivan, Rita, Foster, Jean, and Schreiner, Richard, "Determining a Newborn's Gestational Age," *MCN*, January/February 1979, pp. 38-44 (good article; descriptive pictures).

4. List the observations you would expect to see for the infants with the following three Apgar Scores:

<i>Sign</i>	<i>Score</i>	<i>Score</i>	<i>Score</i>
Heart	2	1	2
Respiratory	2	1	1
Muscle	2	0	1
Reflex	2	1	1
Color	<u>2</u>	<u>0</u>	<u>1</u>
	10	3	6
<i>Observations:</i>			

5. Define the following terms related to gestational age:

preterm

term

postterm

LGA

SGA

- (a) Why is it best to assess the gestational age within two to eight hours after birth?
- (b) What does the Dubowitz assessment mean to you as you assess a newborn?
- (c) Why is this assessment important?

6. **Attend** a small group discussion on “Helping Mothers with New Babies.” Find out the most common types of formula used in your hospital. Look at the labels and note the differences. Bring this information to the group to share.

- Demonstrate planning nursing care for the following infants: include bathing, observations, need for oxygen, changing diapers, feeding. You are the nursery nurse receiving report on the following babies:

Baby with phototherapy.

One-day-old boy, lusty cry at birth, Apgar score 9, taking 120 cc q3–4h; to have a circumcision at 1:00 P.M.

Term newborn, SGA.

- Demonstrate admitting the babies described above to the newborn nursery.\*
- Role play teaching a small group of new mothers about bathing infants, sterilizing bottles, types of formulas. React to the following questions by these mothers:  
 “Which type of bottle do you recommend?”  
 “I thought it was unnecessary to sterilize bottles if a dishwasher is used.”  
 “I heard that babies aren’t washed very often because of the drying effect of soap on the skin.”  
 “What about the bottles that are shaped like a breast?”  
 “Why this formula instead of the one (Enfamil) my neighbor uses?”  
 “Is it OK to put my baby on her stomach in the crib?”  
 “Can my baby be in a room with air conditioning?”  
 “How warmly should I dress my baby?”
- List at least five statements that you, as students, might use to find out what knowledge the mother has about caring for her baby after discharge. Make these specific, and all members of the group should have suggestions to make. These statements must

\* Some of these activities can be done in campus lab.

draw the new mother out so that you really know what she needs to learn before she goes home with her new baby.

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

**1. Create** a poster or a sample box with pictures or actual samples of formula, bottles, bath equipment and lotions, diapers, pins, and so on, for showing and teaching the new mother. As you use this in teaching make notes of the questions mothers ask. Bring these to postconference for discussion.

**2. Practice** (role play) in campus lab assessing a newborn's condition using a head-to-toe assessment tool.

Use the chart on p. 389, or whatever tool is used in your facility.

Role play reactions to the following comments or questions by mothers who are receiving their babies for feeding:

"You handle my baby too roughly, like a football."

"Why isn't the milk heated?"

"Why must I wait so long before I get my baby?"

"Why are her hands covered?" (Some nursery gowns have sleeves closed to cover hands to prevent scratching by long nails.)

"This nipple is too slow."

"This nipple is too fast."

Discuss Teaching and Discharge Plans. Role play teaching a new mother about infant care.

Adapt Discharge Plan on p. 25 for an obstetrical patient.

**3. Plan** for a clinical experience.

▲ Care for babies in the newborn nursery. Large babies, small ones, long, short, weak, strong, and so on. Admit one or more.

▲ Observe nurses making gestational assessments. Record your own assessment as you observe. Compare.

▲ Discharge at least one baby. Did the mother seem well prepared to take up the care of the baby? How did you find out? Use discharge plan from B.2.

## NURSING ASSESSMENT OF THE NEWBORN\*

### Points to be Noted:

#### I HEAD

- (a) Circumference
- (b) Relationship to rest of body
- (c) Size and shape compared with adult
- (d) Size and shape of
  - anterior fontanel
  - posterior fontanel
  - sutures
- (e) Caput
- (f) Cephalhematoma

#### II EYES

- (a) Epicanthal folds
- (b) Pupil reaction
- (c) Cornea and iris
- (d) Discharge
- (e) Movement
- (f) Evidence of vision

#### III EARS

- (a) Symmetry
- (b) Placement
- (c) Skin tags
- (d) Evidence of hearing

#### IV NOSE

- (a) Nares
- (b) Bridge
- (c) Symmetry

#### V MOUTH

- (a) Lips
- (b) Palate
- (c) Gums
- (d) Tongue
- (e) Suck, swallow, and rooting reflex

#### VI NECK

- (a) Torticollis
- (b) Length
- (c) Tonic neck reflex

#### VII CHEST

- (a) Circumference
- (b) Shape
- (c) Breasts
- (d) Respiration—describe rate
- (e) Heartbeat—rate

#### VIII ABDOMEN

- (a) Shape
- (b) Cord

#### IX SPINAL COLUMN

#### X LEGS AND FEET

- (a) Symmetry
- (b) Movement
- (c) Toe pressure
- (d) Babinski
- (e) Plantar grasp
- (f) "Stepping"

#### XI HIPS

- (a) Abduction of thighs
- (b) Gluteal folds
- (c) Postanal dimple
- (d) Mongoloid t spot

#### XII GENITOURINARY

- (a) Patency of anus
- (b) Patent vaginal orifice—discharge
- (c) Urinary meatus
- (d) Labia majora
- (e) Labia minora
- (f) Scrotum

#### XIII POSTURE

- (a) Sleeping
- (b) Waking
- (c) Moro—how long does this persist?
- (d) Muscle tone
- (e) What is meant by "position of comfort"

#### XIV SKIN

- (a) Color
- (b) Differences from adult
- (c) Areas of edema, redness
- (d) Petechia
- (e) Rashes

#### XV TEMPERATURE

#### XVI CRY

- (a) Pitch
- (b) Frequency
- (c) Behavior

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



- ▲ Perform the following nursing measures with supervision after observing them performed in the newborn nursery or on the children's floor.
  - Suctioning mucus with a bulb syringe.
  - PKU/Guthrie screening test.
  - Giving injections (vitamin K).
  - Assisting with a circumcision.

Discuss these procedures in postconference. How did you feel seeing such tiny beings treated? What is the difference in PKU testing? Blood test and heel stick?

- ▲ Observe a neonate with jaundice; list the nursing responsibilities for babies being treated with a bilirubin light.
- ▲ Practice using a gestational age assessment tool on newborns in the nursery. Make notes and share these in postconference.

## OBJECTIVES

### *Assessing a New Parent's Feelings and Attitudes*

-    13. *Demonstrate communicating “mothering”<sup>\*</sup> while holding, feeding, bathing, and diapering the neonate.*
-    14. *Using an assessment tool, and given a patient situation (or actual patient to care for), identify the attitude of the parents toward their new role.*
-    15. *State three emotional needs that might change because of being a new mother and demonstrate or role play helping a new mother recognize these changes.*
-    16. *Given a list of symptoms, identify which are characteristic of “blues” and which are characteristic of psychoses.*
-    17. *Given a patient situation, identify clues that might indicate one or more of the following maternal feelings or attitudes: disinterest, preoccupation with self, complete preoccupation with infant.*
-    18. *Demonstrate planning two nursing actions, prior to giving care to a postpartum patient, that are aimed at helping the mother to have an early success experience with her infant.*

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

**1. Think about** the “commercial” view of the new mother. Is it wrong for a new mother *not* to feel delighted, proud, and happy all the time? Could this contribute to feelings of guilt and depression? Why? How do fatigue, discomfort, and concern affect a patient's mood? How can we compete with the “commercial” picture and allow the new mother to “be herself” with a variety of contradictory feelings, either hidden or obvious?

Mothering (see definition in footnote below) includes parenting; families are given a much better start when a broader range of maternity care is provided, and nurses have many more responsibilities for independent nursing actions.

Should the nurses be helping (and observing) the new father also? What about older siblings, if any?

**2. Review** defense mechanisms in LEG II-A. What is a neurotic mechanism?

<sup>\*</sup> “Mothering”—giving of all the natural, normal care and caresses that convey love, protection, joy, warmth, consistency, security, by facial expression, touch by hands, body, breasts, tone of voice.

The morning newspaper reports: "3-month old Jimmy was brought into the emergency room, battered, bruised, and unconscious, by a neighbor, who had heard 'loud angry voices, crying, and then nothing. . .'"

What causes the battered child? Why are some mothers disinterested, preoccupied with themselves, or completely preoccupied with their children? What is ambivalence? Is it possible to love and hate at the same time? Are there really feelings of ambivalence?

Have you ever had the blues? Felt depressed? Do you know the actual cause or the precipitating cause? (Review LEG VI-A.) What are some symptoms of "the blues?" Do you seek companionship or want to be alone? Are you irritable or silent? Sleepy or restless? Do you lose your appetite, or are you hungry? Do you look forward to your next "blues session?" What can you do to help yourself? Think of the contributing factors that can cause depression for a new mother. How do they differ from the depressions of everyday life?

### 3. View audiovisuals.

"Adapting to Parenthood" (20 min, PMF).

"The Battered Child" (58 min, IU).

"Caring and Coping" (25 min, PP), 1980.

"Fathers" (23 min, CHF).

"Help, I'm a New Parent" (24 min, CHF).

"Nicholas and the Baby" (23 min, UM), 1981.

"Right from the Start" (55 min, PT, AJN), 1983.

"The Ties That Bind" (27 min, PMF), 1980. Two couples share feelings; parent-infant bonding.

### 4. Read maternity, nurse-patient relationship, psychological references on *role as a new mother, maternal attitudes and feelings, blues, psychoses, maternal-infant bonding.*

#### Book

Blondis, and Jackson, 1982, "Bonding," p. 81; "Parenting," p. 84.

#### Journals

Brown, Marie Scott, and Hurlock, Joan T., "Mothering the Mother," *AJN*, March 1977, p. 439.

Carberry, L. J., "Postpartum Depression," *JNC*, July 1982, pp. 11-13 (factors that contribute to occurrence, signs to watch for, and nursing care).

Ludington-Hoe, Susan M., "Postpartum: Development of Maternicity," *AJN*, July 1977, p. 1171 (emotional factors of motherhood).

—, "Learning Needs of New Parents," *AJN*, July 1977, p. 1173.

Mercer, Ramona T., "Postpartum: Illness and Acquaintance-Attachment Process," *AJN*, July 1977, p. 1174.

—, "The Nurse and Maternal Tasks of Early Postpartum," *MCN*, September/October 1981, pp. 341-345.

5. **List** reasons why the new mother may have ambivalent feelings about being a mother.

### COMMENTS ON ASSESSING ATTITUDES

*As you read and respond to isolated patient remarks, you must realize that one isolated statement or action is not indicative of abnormal patient reaction. The key word to indicate "problems" with feelings is excessive or overreacting too often (fear, pain, joy, casualness, demands, worry). It is not your responsibility to decide what is excessive. Your role is to recognize clues from patients that should alert you to reevaluate the situation, and you must report the clues so that they may be passed on to the physician:*

#### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Describe** in your own words the following patient's attitude toward her new role as a mother.

"I'm so excited about getting my baby home. I have so many clothes to dress her up in, and it will be such fun. My little doll!"

What are your thoughts, and therefore what would be your reply? What is the purpose of your reply?

What is the purpose of the following reply:

"Yes, babies are fun and they are cute all dressed up. But there is much more to the care of your baby. What changes do you think your baby will make in your home routine?"

Compare the following two patient responses:

- (a) "Yes, that's so true, and I have plans all set for a very good sitter, so my husband and I can still get away together, and I'm prepared for baby care, but right now I'm just thinking of the fun part."
- (b) "Oh well my mother said she'd help, so I'm not thinking about anything but the fun of playing with my baby."

What response would you make to each of those statements? Why?

(a)

(b)

2. **List** three observations that would indicate a patient is in the "taking-in phase" and three observations that a patient is in the "taking-hold phase."



3. Select four descriptions of symptoms from list A below (cover column B) that may be characteristic of “blues.” Cover column A and circle those in column B characteristic of “blues.” Compare your answers. If there is a difference in your answers, how do you explain the difference? Which symptoms may be clues and which symptoms seem normal or expected? Why?

<i>A</i>	<i>B</i>
(a) Difficulty in sleeping	(a) Insomnia after visiting hours; sleeps well once she gets to sleep
(b) Talkative about delivery experience	(b) Comments about delivery experience; does not dwell on discomforts or anesthesia
(c) Irritable and tearful	(c) Cries or is irritated once or twice; not daily or even frequently
(d) Good appetite and talks with interest about food	(d) Requests milkshakes and sweets from husband; snacks frequently, eats ravenously
(e) Loses her appetite	(e) Refuses one meal or “picks” at food the first day but gradually, with encouragement, appetite improves
(f) Talks of a “letdown” feeling	(f) “Letdown feeling” lessens after holding and feeding her baby

There are at least three ways to get additional information: *ask questions of staff members, talk with patient, make observations.*

- Imagine that you are receiving report. What would you ask the evening nurse to get additional information about the patient who has “difficulty in sleeping?”
- You walk into a patient’s room and find the patient irritable and crying. You wonder what this means. What would you look for during the next eight hours to give you the necessary additional information?
- How would you talk to a patient who complains of a “letdown” feeling in order to get additional information?

#### COMMENTS ON FEELING MATERNAL

*Remember that just having a baby does not arouse maternal feelings. This is normal, and if a new mother expresses this concern and a feeling of guilt, you should help her become aware that many new mothers feel this way. Prenatal classes usually cover this so that parents are aware that by caring and cuddling, love and feelings start. You must be sure that you intervene when needed so that guilt feelings do not arise.*



Guidelines to be used in assessment of maternal attachment to infant

*Behavior*

*Yes/No*

1. Does the mother talk to baby?
2. Does the mother have eye contact with baby?
3. Does the mother touch the baby with fingertips or palms of hand?
4. Does the mother hold the baby close to her body?
5. Does the mother respond to and is she sensitive to baby's needs?
6. Does the mother smile and show pleasure in the baby?
7. Does the mother hold baby in the en face position?

4. List five behaviors of the new mother and father that indicate bonding, and the beginning of parenting.

5. Attend a small group discussion on "Postpartum Problems."

- Discuss the following statements related to "blues," depression, psychosis, crisis, loss, grief:

*[Note: The following statements have been expressed at various times by individuals with opposing views as to the merits of different methods of childbirth. These statements are not offered for judgment but for reaction—your reaction as you think about childbirth as a crisis for the mother. What can you do to help her through the stages of grief?]*

"Depression follows anesthesia during childbirth."

"Pain of childbirth causes the mother to feel resentful toward the baby."

"If this 'depression' is normal it should respond and be cured, just as fatigue from any tiring experience would be relieved, by resting."

"Natural childbirth can avoid the feeling of loss and lag in emotional feelings of mothering."

“A mother who misses the moment of birth because of anesthesia may still be in an emotional state of expectancy. Release from the pent-up emotion must come.”

“A new mother does not understand why she feels such a letdown. She touches her child gingerly, almost with disbelief as she begins to identify herself with her child.”

- Role play what you would do and say to the following patients (See Objectives 14 and 15):
  - (a) Patient you find crying quietly at night.
  - (b) Patient who is still alternately wandering around her room and reading at midnight.
  - (c) Patient who says she can't eat the “terrible food.”
  - (d) Patient who tells you she feels “letdown” and appears at loose ends.
- Examine and respond to the patient comments below. (See Objective 17.) What do you think the patient is saying? What is your responsibility?
- Role play your responses for group evaluation. After completion of each, go back and evaluate your thoughts and responses. You won't have this chance with a life patient statement, so seize this opportunity for a second chance!

Patient No. 1 “Oh, I just saw Mellie again. She is so beauuutiful—every feature is just perfect. She doesn't resemble any of us, just her precious self. Don't you agree?”

Patient No. 2 “Let me tell you what happened last night. My baby was brought out with much too much wrapping. His feet were bound down, and the bottle was dripping because the nipple didn't fit right, and the nipple looked DIRTY! I had to ask the head nurse to come and change the whole thing. I'm so afraid little Jack will get sick from a nursery infection—you've heard of nursery infections, haven't you?”

Patient No. 3. “Here, take him. I'm too tired today. You feed him. I'm here for a rest—why can't I just have him fed in the nursery until I go home?”

Patient No. 4 “My mother nursed all three of her children and wants me to nurse Joanie. I've tried, but just don't have any luck. Don't you think I've tried long enough?”

Patient No. 5 “Look, I have another book on child psychology; my best friend sent it. She knows I want to raise Mary just right. I've always admired children with good manners, and I'm going to teach mine right from the start. Look at how she spit up some milk. Hand me that cloth, I'll wash her off. She can't be messy, not *my* baby.”

Identify factors that contribute to successful and unsuccessful parenting.

6. **Plan** for a clinical experience.
  - ▲ Ask multipara patients to identify what worried them after they went home (e.g., baby's care, their own physical condition, etc.). What nursing actions helped them most? Least?

- ▲ Talk with a father; include him in child care instructions. Help the father understand how threatening a little baby can be at home; praise and special attention are necessary for the mother, not just for the baby.
- ▲ Read charts of selected obstetric patients with (a) signs of neurotic mechanisms and/or (b) discharged following symptoms of “blues” or psychosis. Think about how you might have assisted these patients.
- ▲ Take babies to their mothers. Stay with them during feedings (both breast- and bottle-feedings for comparisons). Look for maternal attitudes and success experiences. Take time to listen and help the new mothers. You need not wait to be asked!
- ▲ Identify behaviors that would indicate how a new mother is adjusting to her “mothering role,” using an assessment tool.



## OBJECTIVES

### *Teenage Pregnancy, Single Mother, Birth Control*



19. Given a statement made by a single mother and a list of nurse's statements, select which of the nurse's responses indicate each of the following: (a) a willingness on the nurse's part to talk about the patient's feelings, (b) an avoidance of the subject of illegitimacy, (c) nonconstructive curiosity.



20. List the effects that pregnancy and parenthood have on the developmental tasks of a teenager.



21. List six birth control methods and the advantages and disadvantages for each.

### A . WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. Think about your own attitudes. What do "single mother," "teenage pregnancy," "birth control," and "population pollution" mean to you? Now is the time to face your own feelings.

#### COMMENTS ON GIVING SUPPORT TO SINGLE MOTHERS

*The nurse's role with the single mother is not to make decisions but rather to give support as the mother thinks through her decision to keep or not to keep the child, her feelings about herself and her family, her future. Listen to clues, reflect and help her clarify feelings; encourage her to talk about her concerns and ambivalence. Be not a judge nor an advice giver; instead, be a "weatherman"; maintain a climate for easy discussion, listening, grieving, and mourning as necessary.*

*As a student, you may find it difficult, may even be afraid, to communicate with the single mother. Talk with persons who have adopted a baby and with nurses who have had many experiences with unwed mothers now and in the past years. Listen to the changes in attitudes that exist now. To be armed with the how and why of adoption procedures and to know your own feelings and attitudes is to be prepared!*

*Do you have feelings of ambivalence toward the single mother? Do you feel sorry for her and at the same time blame her for the situation? Is she a "bad" person if she gives up the baby? If she keeps the baby? Ambivalence occurs in all of us.*

2. View audiovisuals.

"Teenage Pregnancy and Prevention," Part 1, The Problem; Part 2, The Choices; Part 3, The Solutions (HRM).



"Birth Control: The Choices" (25 min, CHF).  
"Vasectomy" (17 min, CHF).

3. **Read** maternity, sociology, psychology, nurse-patient relationship references on *unwed mother, illegitimacy, birth control, planned parenthood, teenage mother*.

#### Books

Bodinski, 1982, "Pregnancy in Adolescence," p. 294.

#### Journals

Donlen, Judy, and Lynch, Peggy, "Teenage Mother . . . High Risk Baby," *Nursing*, May 1981, pp. 51-56.

Mercer, Ramona, "Becoming a Mother at Sixteen," *The American Journal of MCN*, January/February 1976, pp. 44-52 (Developmental crisis resulting from adolescence, pregnancy, marriage, motherhood).

— "Contraception for Adolescents," *AJN*, December 1981, p. 2191.

4. **Attend** a large group session by a social worker from a child protection agency in your community on "Care of the Single Mother" (to be arranged in your own area), or a session by a speaker from the Planned Parenthood Association.

5. **Predict** the outcome of conversations between these five patients and nurses. There are numerous possibilities. Try them out. Draw some conclusions and bring these to group meeting B-2.

#### *Single Mother*

Teenager who has given birth to a normal baby boy; no prospects of marriage at this time, parents giving support; girl has been seeing social worker since sixth month of pregnancy; plans to give baby up to adoption agency.

Teenager, normal baby girl; no immediate prospects of marriage; has decided to keep her baby, and parents are willing to help her while she finishes school

Thirtyish; divorced during this pregnancy; no other children; plans to give baby up for adoption.

Thirtyish, divorced five years ago, and has another 7-year-old child; baby is normal. She has decided to keep the baby.

#### *Nurse*

In twenties and has very firm religious and moral views on birth out of wedlock. She has two older married sisters and has been married one month.

Twenty years experience in maternity nursing. She has seen unwed mothers since the 1950s and notices a great change in the attitudes and approaches to the single mother.

Thirtyish; divorced, with a 8-year-old son.

Mother of a single mother (5 years ago) who gave her baby up for adoption.

Twentyish, who has just borne her second child out of wedlock. She kept her first child, who is now three, and plans to give this child up for adoption. She has been seeing a social worker for the past month.

Herself a single mother who kept her baby.

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

**1. List** at least one advantage and one disadvantage of each of the following birth control measures.

oral contraceptives

Billing's method

intrauterine devices (IUD)

rhythm method

vasectomy

vaginal diaphragm with spermicidal jelly

tubal ligation

condom

Which of these measures is (are) approved by World Health Organization (WHO)?

Which are easier and more reliable for the disadvantaged? Why?

**2. Attend** a small group discussion on "Therapeutic Communication with a Teenage New Mother."

Read about the effects of pregnancy on an adolescent.

Discuss how pregnancy superimposes a maturational crisis onto the adolescent.

*Follow through* on the statements below. What is being said? What attitudes are displayed by the patient's statements? Label the nurse's statements either (a), (b), or (c) from Objective 19 p. 399. *These are random unrelated statements.* Add your own until you can comfortably be therapeutic with a single mother. Add some for the single father, too.

#### *Mother's Statements*

"I wonder how my baby will do in a foster home?"

"It's going to be fun to have my baby around the house."

"I wish Jack could see our baby."

"By next summer no one will even know this event occurred."

"I hope I can find a father for my baby."

#### *Nurse's Statements*

"Does your baby look like his father?"

"You must have mixed feelings about being a mother."

"After a few months you'll be right back in the swing with other teenagers and no thoughts of this experience."

- Discuss and roleplay what the mother's statements might mean and what you might say.

#### *COMMENTS ON BEING AVAILABLE*

*Patients need to talk about their concerns. If they have little or no contact with a social worker, you may be their only professional contact. You must make the most of your time in helping them talk about their concerns.*

- React as a group to the following questions that you might hear from a single mother. (Remember that you are a sounding board.) We believe that you will be better able to listen and help your patient if you have thought about and discussed these problems. Single mother says:

"I've been over and over the question of adoption. Should I or shouldn't I keep my baby?"

"What will happen to my baby if I do let him be adopted?"

"How do I know that the foster parents will be kind to her?"

"How does the agency choose the new parents for my baby?"

"Will I ever be able to find my baby? Or meet the new parents?"

“Will I have a chance to change my mind?”

“Can’t I see my baby—just to know he’s OK?”

- Role play the situations you have predicted in A-5 with both satisfactory and unsatisfactory outcomes. Discuss how the outcomes can be changed. Experiment with the following as you role play.

Patient leaves an opening for nurse.

Nurse avoids the opening.

Nurse gives opinion.

Nurse asks patient to explore the area left open.

Nurse does not explore the area left open.

Nurse puts patient at ease.

Nurse makes patient feel guilty by words or mannerisms.

3. Write a thought paper on your attitude, and/or changes in attitude, about illegitimacy, birth control, or both.
4. Plan for a clinical experience.
- ▲ Care for one or more single and/or teenage mothers.





## EXTRA ADDED OBJECTIVE

### *Helping a Family Deal with a High-Risk Neonate*



22. Identify the needs of the patient and family when faced with the loss of the newborn, a premature infant, or a newborn with a physical anomaly. (E)

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** grief phases before you approach a patient with a baby with a physical anomaly, a premature infant, or a baby who has died. Do you have a plan of initiating the conversation? What will you do if your patient says, "I don't want to talk about it."

2. **View** audiovisuals.

"Death of a Newborn" (10 min, PMF), 1977.

"Death of a Newborn" (33 min, UMTV), 1976.

"Discussion with Parents of Malformed Baby" (37 min, PMF), 1978.

"Discussion with Parents of Premature Infants" (32 min, PMF), 1980.

"Age Minus 60 Days" (16 min, BAN). Premature infant.

3. **Read** maternity, psychology, and psychiatric references on *grief, crisis, birth defects, stillbirth, premature infant*.

**Review** LEG V-B, LEG VI-A, and look ahead to LEG XI-A.

#### **Journals**

Carbary, L. J., "Post-partum Depression," *JNC*, July 1982, pp. 11-13 (factors that contribute to occurrence, signs to watch for, and nursing care).

—, "Crisis: A Baby Is Born with a Defect," *Nursing* 77, November, pp. 45-47.

#### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Attend** a small group discussion "Helping Grieving Parents" to discuss your readings and feelings about maternal reactions to the problems listed in Objective 22. Some of the group members may have had experiences of their own to contribute to the group.

2. **Plan** for a clinical experience.

- ▲ Visit the mother of a premature infant. What are her special worries? Would you consider this a crisis situation for the mother? Note the Apgar score of the premature infant. Help this mother work through her grief reaction as you give her physical care. Does she deny the problem? How can you bring it up and discuss it with her?
- ▲ Talk with the mother of a stillborn or a child with a defect. Be available during visiting hours. Talk with the father. What are your own reactions to this situation?

*[Note: You will have more experiences with parents with complicated pregnancies next semester. Review this LEG then; look ahead now.]*

# LEG VIII-B

## Postpartum Care

### HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VIII-B are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the "doing" Objectives. Use a separate sheet of paper for these answers and then use the answers in clinical or campus lab for your own evaluation.

#### *Objectives*

#### *Questions*

- |   |   |
|---|---|
| 1 | 1. What physiologic changes occur in each of the following systems: reproductive, vascular, endocrine, G.I., urinary, and muscular (abdominal)?                     |
| 2 | 2. Complete a nursing care plan on a normal postpartum patient.   |
| 3 | 3. Describe a nursing measure for each: hemorrhoids, engorgement, episiotomy, urinary retention, constipation.  |
| 4 | 4. List the postpartum checks and steps you would take when you give or teach peri care to a new mother according to the criteria in Objective 4; demonstrate this. |
| 5 | 5. List at least five physical characteristics of a normal newborn.   |
| 5 | 6. How does fetal circulation differ from newborn circulation?  |
| 5 | 7. Describe the periods of reactivity.  |
| 5 | 8. Describe eight major reflexes of the neonate.  |
| 5 | 9. What are normal vital signs for the neonate?   |
| 5 | 10. What are the normal blood values for the following lab tests:   |

red blood count  
white blood count  
platelets  
hematocrit  
hemoglobin

- 5            11. What is the importance of heat production, temperature regulation, and the effects of cold stress on the neonate?
- 6            12. List the steps you would take to teach and assist a new mother to nurse her baby.
- 7            13. List the steps you would take to teach and help a new mother to give her baby formula.
- 8            14. Give two examples of lactation suppressing hormones; state the route of administration, side effects, and when they are administered.
- 9            15. Describe the Apgar system of evaluating a newborn.
- 10           16. List the steps you would take to admit a newborn to the nursery.
- 11           17. List the steps you would take when giving care to a newborn.
- 12           18. List the steps you would take to teach a parent about infant care.
- 13           19. List the ways you communicate “mothering” while holding, feeding, bathing, and diapering an infant.
- 14           20. Describe in your own words the following patient’s attitude toward her new role as a mother. (Questions 20–23 refer to the following situation.)
- Mrs. N. M. is a college student. She hoped she would complete the semester before delivery. The baby came three weeks early. She is two days postpartum and is to be discharged tomorrow morning. During morning care you overhear these comments to her roommate: “Tom and I won’t graduate together now. My folks warned me about this. Tom is so thrilled about the baby; he doesn’t understand how hard it’s going to be for me. Oh, I guess I shouldn’t say that, my baby is so sweet. . . .”
- 14           21. Use an assessment tool. What additional information do you need about this situation to be helpful toward Mrs. N. M.?
- 14           22. How can you obtain this information?
- 15           23. List three emotional needs of this new mother.

Write what you would say to Mrs. N. M. to help her recognize her own changes in needs.

- 16      24. Identify which of the following symptoms are characteristic of (a) psychosis and (b) "blues":
- (a) temporary depression
  - (b) excessive anxiety
  - (c) fatigue
  - (d) letdown feeling
  - (e) discomfort
  - (f) excessive talkativeness
  - (g) amnesia about birth
  - (h) sleeplessness
  - (i) crying
  - (j) irritability

- 17      25. Identify the clues of disinterest, preoccupation with self, and/or complete preoccupation with the infant for patients on page 396.

- 18      26. Plan and write two actions you would take to help the mother in the situation below have an early success experience in caring for her baby. You receive the following report on your patient:

Mrs. N. S., two days postpartum, is to be discharged tomorrow. The baby falls asleep while he is eating, and he usually finishes his bottle in the nursery. Your assignment is "Give A.M. care to Mrs. N. S."

- 19      27. Identify which of the following responses by the nurse to a statement by a single mother show (1) a willingness on the nurse's part to talk about the patient's feelings, (2) an avoidance of the subject of illegitimacy, (3) nonconstructive curiosity:

L.M.: "When I go home I'll be living with my mother for a while."  
Nurse responses:

- \_\_\_\_\_ (a) "Did you consider getting married?"
- \_\_\_\_\_ (b) "Did you quit school before the term was over?"
- \_\_\_\_\_ (c) "How does your mother feel about your pregnancy and delivery?"
- \_\_\_\_\_ (d) "It'll be good for you to be home with your mother."

"D.L.: "I have to get a job as soon as I get home."

Nurse responses

- \_\_\_\_\_ (a) "What will you tell your employer about the baby?"
- \_\_\_\_\_ (b) "Were you working before the baby came?"
- \_\_\_\_\_ (c) "What kind of a job will you try for?"



- 20            28. What are the effects that pregnancy and parenthood have on the developmental tasks of a teenager?
- 21            29. List six different methods of birth control and one advantage and one disadvantage of each.
- 22            30. What are the needs of the patient and family when faced with the death of a newborn, a premie, or a newborn with a physical anomaly.

## LEG VIII-C

### Gastrointestinal Problems

# WHAT WILL I LEARN?

We are what we eat. So the saying goes, and you will soon see that the gastrointestinal body system is very responsive to stress and the regulatory processes. You may need to review the way in which food and diet affect the body. This **body system** responds to both medical and surgical measures. You will learn how to help with both.

Not only is surgery and hospital admission a cause for a *crisis* situation, but so are certain gastrointestinal problems (e.g., jaundice, colostomy). You will learn what is involved and how to help patients accept their limitations and the inevitable body image changes that result.

The ulcer patient and the ulcerative colitis patient have problems of adjustment that may tax the most knowledgeable and empathetic nurse. All of these patients need you, so get involved! Take every spare minute to go in and visit or sit with a patient. Find out how they feel; let them know that you care and are willing to help.

Consider *all age groups*. Many of these patients have a relatively short hospitalization; others are hospitalized for weeks. Don't let yourself fall into the pattern of ignoring the "quiet wheel." The "quiet wheel" needs "oil" to keep it running smoothly. The "squeaky wheel" needs you to soothe and smooth its "tract." You can't wait for your patients to call you; some of them will never call even though they need you, and others call so often that you can't hear them. The trick is to be so well informed and "sharp" that you can anticipate and give care before or even if you are not asked! Try it!

This LEG will give you a chance to review LEGS VII-A and VII-B and apply those Objectives on surgical nursing care and care of patients with fluid and electrolyte disturbances. Some time may have elapsed since you studied those LEGS, so this will be a good refresher before you finish the term.

The **Content of the Objectives** for LEG VIII-C is:

- Admission and Assessment (1, 2)
- GI Laboratory/Diagnostic Tests (3, 4)
- Diet Changes (5-7)
- Pharmacology (8, 9)
- Medical Care for GI Problems (10-12)
- Hepatitis and Infection Control Measures (13, 14)
- Surgical Problems and Nursing Care (15-17)
- Wound Care (18, 19)
- Ostomy Care (20-22)

## WHAT'S AHEAD IN LATER LEGS

In Volume III you will continue to study patients with GI problems.

LEG IX-A—*anorexia and bulimia*

LEG IX-C—*teaching patients with ileal-conduits*

LEG X-A—*helping convalescent patient following colostomy*

LEG X-B—*care of patient in hepatic coma*

LEG XIII-C—*care of patient with pancreatitis*

## OVERVIEW OF LEARNING EXPERIENCES IN LEG VIII-C

<i>Objectives</i>	<i>Campus Lab Practice</i>	<i>Group Discussions/Lecture</i>	<i>Clinical Lab Focuses</i>
1. Admitting patients with alterations in GI functioning 2. Physical assessment of patients with GI problems <b>(H)</b>	B3. Physical assessment of abdomen and GI system	B1. Admission of patients with alterations in GI functioning GES Objectives 1,2	B4. Admit patient with alteration of GI functioning Practice observation skills Auscultate for bowel sounds Write NCP
3. Diagnostic tests 4. Collecting stool specimens		B1. Interpreting diagnostic studies	B3. Observe diagnostic procedures Observe endoscopy Care for babies and young children Collect stool specimens
5. Diet therapy in GI disorders 6. Nursing care planning for patients with nutritional problems 7. Caring for a patient receiving hyperalimentation therapy	B3. Roleplay dietary assessment	B2. Solving nutritional problems related to GI disorders	B4. Observe special diets Talk with patients about diet Make a dietary assessment Visit diet kitchen Help patients select food from a list Observe and assist in care of patients with hyperalimentation Observe insertion of central vein intravenous nutrition
8, 9. Pharmacology			B4. Complete drug cards on GI medications Talk with pharmacist Talk with patients about their drugs
10, 11. Writing teaching and discharge plans for patients with inflammatory conditions and malabsorption problems 12. Assessing and caring for patients receiving conservative medical treatment for GI problems		B3. Caring for patients with GI problems	B4. Observe patients who show attitudes of being demanding and hostile Observe and talk with patients with GI problems Observe patients of all ages; pediatric and adolescent units Care for patient with malabsorption disorder
13, 14. Nursing care for patients with hepatitis		B2. Care of patients with hepatitis and jaundice	B3. Admit a patient into room set up for infection control. Care for that patient Care for a patient with jaundice Write drug cards
15, 16. Caring for patients with GI surgery 17. Complications of GI surgery		B4. Care of patients having surgery	B5. Observe patients after GI surgery Care for patients with GI surgery Look for patients with distention Review Clinical Expectations for Level Eight Care for pediatric surgical patients
18. Changing surgical dressings 19. Irrigating a wound	B2. Applying dressings		B4. Assist with or observe a dressing change, wound irrigation, wound culture Change a dressing Evaluate patients' conditions
20. Emotional needs prior to a colostomy 21. Irrigating a colostomy and changing a colostomy dressing and bag appliance 22. Caring for patient with colostomy		B1. Concerns of a patient scheduled for a colostomy	B4. Care for patients with colostomies Examine types of colostomy supplies in central supply Talk to an enterostomal therapist about colostomy care

# NEW TERMS AND ABBREVIATIONS

antrum	hepatic	peritonitis
ascites	hiatus	polypectomy
asterixis	icterus index	proctoscopy
bilirubin	idiopathic	reducible
esophagoscopy	incarceration	sigmoidoscopy
fecalith	inguinal	soma
gastric hypothermia	intractable	stoma { distal proximal
gastrin	intrinsic factor	strangulated
gastroenterostomy	jaundice	subphrenic
gastrosocopy	malabsorption	truss
HAV-AB	obstipation	urobilinogen
HB <sub>s</sub> Ag	occult blood	vagotomy
HBV	paralytic ileus	volvulus
hematemesis	peritoneum	



# OBJECTIVES

## *Admission and Assessment*



1. *Demonstrate admitting a patient with an alteration in gastrointestinal functioning, completing the orientation and charting as required, and making at least three observations pertinent to each health problem.*



2. *Demonstrate doing the physical assessment of a patient admitted with an alteration in gastrointestinal functioning.* (E)

### A. WHAT'S IT ALL ABOUT?

1. **Think about** how you feel when you have a disturbance of the gastrointestinal tract. What are your symptoms? Pain—where and what kind? Nausea, vomiting, distention, excessive gas, diarrhea? Imagine how you would feel with a combination of these symptoms. Now combine those feelings with thoughts of being admitted to the hospital. What can you do to ease the anxiety and stress of the admitting process for your patient? What visual observations can you make about your patient and his or her condition as you go through the admitting process? How are you going to provide maximum comfort and anticipate your patient's needs?

### 2. View audiovisuals

"The Digestive System" (19 min. USC) 1981  
"Physical Assessment of the Abdomen" (N).  
"Health Assessment: Module 7, Abdomen" (B), 1983.  
"Physical Assessment of the Abdomen" (9 min, AJN).  
"Admission and Discharge" (TR).  
"Admission and Orientation of the Child" (TR).  
"Interviewing and Gathering Information" (N).

3. **Read** your hospital's procedure manual(s) on the *proper admission procedure*. List how you will modify or change each of the steps for a patient with a gastrointestinal problem. Note where you find the information that you use to modify the procedure. Make sure that your rationale for each modification is sound!

### Journals

Malkiewicz, Judy, "For a Really Thorough Abdominal Exam. . .," *RN*, October 1982, p. 59.  
McGuire, Lora, "A Short, Simple Tool for Assessing Your Patient's Pain," *Nursing 81*, March, p. 48.  
Petlin, Ann, and Carolan, Jacqueline M., "Getting Your Patient Through a Lower GI Bleed," *RN*, February 1982, p. 42.  
Smith, Carol E., "Abdominal Assessment—A Blending of Science and Art," *Nursing 81*, February, p. 42.

## Programmed

“Examination of the Abdomen” (AJN), 1974.

**Review** the anatomy and physiology of the GI system and the physiology of digestion.

**4. Describe** and give examples of problems in the GI tract caused by the following conditions:

*How It Interferes with  
Function*

*Major Problems  
Created*

tumors  
strictures  
adhesions  
herniation  
diverticulum  
polyp  
trauma  
infection  
    bacterial  
    worms  
hypomotility  
hypermotility  
hypersecretion  
hyposecretion

**5. Write** the steps you will take in doing the physical assessment of a patient with either an increase or decrease in gastrointestinal functioning. What questions do you need to ask? Remember, when you actually do this assessment you will need to be organized and thorough. Why are you going to listen to bowel tones before you palpate the abdomen?

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

**1. Attend** a small group discussion on “Admission of Patients with Alteration in GI Functioning.” (See Kardexes, pp. 418–424), and Laboratory Reports, pp. 417, 425, and 426.)

Mr. Martin Morris, 29, bleeding peptic ulcer, diagnosed in the emergency department. His record, which came from the E.R. includes the following symptoms: vomited bright-red blood just before admission; pale, clammy, nervous, and fidgety.

Mrs. Janet Jetson, 38, admitted for hemorrhoidectomy in the morning. She walks as if she has extreme discomfort; appears shy and ill at ease.

Baby Indira, 1 month, has been vomiting for two days. It is now projectile, and there have been no b.m.'s for 12 hours. She is crying and irritable.

Rob Rupsure, 17, is admitted for a bilateral herniorrhaphy in the morning.

Mrs. Helen Horness, 68, admitted with "possible bowel obstruction." Her comment to you: "I'm so worried, I haven't moved my bowels in over a week, and today I began vomiting the most awful-smelling stuff."

Cindy Carter, age 2, admitted with diarrhea, accompanied by her mother. Mother states, "Cindy has had diarrhea since two nights ago."

Mr. Gerald Stone, 57, has had repeated gall bladder attacks for the past five years. He may have surgery, but tells you, "Only if I'll die otherwise."

### PROBLEMS FOR SOLVING

What special needs might each one of the above patients have because of age and/or condition? What nursing interventions would you plan to help each of these patients because of the special needs? What questions would you ask to get more information during your assessment? How and why? What observations would you expect to make? What observations might surprise you? What observations would be related to fluid and electrolyte imbalance?

2. Write a NCP for three patients: one with a gall bladder problem, another with a G.I. problem, and a third with a rectal problem. Include a brief history collected by you when you admitted the patient. Assume that each of the three patients has at least one diagnostic tests ordered. (Your instructor will provide the list of tests.) Consider each of the patient's basic needs, and emphasize only the problem areas for each patient. You may use the Kardexes on the next pages.

#### Laboratory Tests

#### Laboratory Reports for Gerald Stone

	6/16	6/17	6/18
CO <sub>2</sub>	36.5	BUN 70	BUN 62
CL	99		
Na	137	Pro Time	
K	4.9	Control 11.3	
BUN	67	Patient 13.9	

Where would you look for these lab reports in the patient's chart? What symptoms would you expect the patient to have?

# NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS	
6/16	Does not ask for pain med Related to feeling he should be able to bear pain		Assess for pain q4h + offer med per	
	Atelectasis may develop Related to high abd. incision, pain & deep breathing		Coordinate tcd b exercises & peak effect of pain med.	
6/17	pot. irritation of old (R) enucleation		Assist & eye care daily	
DATE	MEDICATIONS	DATE	TREATMENTS	
6/18	Demecol 75-100 mg. 'IM' q3-4h. prn pain	6/16	Salem pump to lo qomco	
	Secoval 100mg. p.o. hs prn. May Repeat x1		Chq. dsg. prn.	
6/16	Mefoxin 2/0 gm. 'IV' q8h x6 doses		TCD B q2h.	
	Compazine 10mg. 'IM' q4-6 h. prn			
DATE	I.V. THERAPY	DATE	LABORATORY	
	D-5-1/2 NS at 150cc/hr. Add KCL 30mEq per 1000cc	6/16	CBC, PTT	
			UA	
DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION	
	LITERS/MIN: _____			
	IPPB: _____			
FOOD ALLERGY	DATE	HYGIENE	DATE	X-RAY
DIET	6/16	BED BATH	6/16	EKG
6/16 NPO, Ice chips for comfort		TUB/SHOWER		ACTIVITIES
FLUIDS		MOUTH CARE		BED REST
6/16 I & O q8h.		OTHER dentures	6/16	AMBULATE qid.
RESTRICT	DATE	DRAINAGE - TUBES		TURN
FORCE	6/16	Salem Sump		ROM
7-3 ml.	DATE	BLADDER - BOWEL		RESTRAINTS
3-11 ml.	6/16	FOLEY prn		TRACTION
11-7 ml.		CATH CARE		LAPIDUS DATE 6/16 (OHF)
S & A		BOWEL CARE		PT
CHEM. STRIP	LAST BM 6/15		DATE	VITAL SIGNS qid.
HEMOCCULT	WEIGHT <input type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS
SURGERIES AND DATES 6/16 cholecystectomy & cholangiograms			ISOLATION	
DX Acute cholecystitis & cholelithiasis			AGE 57	
ROOM	NAME Stone, Gerald.	DOCTOR TURNER	ADMIT DATE 6/15/83	



NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS
6/13	Unable to hear (L) ear Related to normal aging		Stand on pt's (R) side when talking
	Abdominal pain Related to SBO		Assess freq., location, intensity, BS Give HS as ordered.
	Dry mouth & nose Related to presence of NG tube, mouth breathing		Oral hygiene q4h, Rinse mouth w H <sub>2</sub> O & hold in mouth briefly q2h.

DATE	MEDICATIONS	DATE	TREATMENTS
6/13	H.S. 1-3 mg. 'IV' q 20 min. prn	6/13	Neomycin enemas 1gm./100cc 4pm, 9pm, 7am.
	H.S. 5-8 mg. 'IM' q 3 h. prn		Permit for abd. exp. lap., Release 3m. bowel
	Ancef gm. + 'IV' q 6h.		NG tube to cont. to qomco
	Neomycin 0.5 gm./NG tube qid. Clamp 2h.		Irrigate NG tube w water q2h prn
	Valium 3-5 mg. 'IV' q 3-4h. prn.		
	Maalox 15cc per NG-tube q4h prn heartburn		

DATE	I.V. THERAPY	DATE	LABORATORY
6/13	D-S-LR ± KCl 20 mEq/100cc at 150cc/hr.	6/13	Chem 16

DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION
	LITERS/MIN: _____		
	IPPB: _____	DATE	DISCHARGE PLANNING

FOOD ALLERGY	DATE	HYGIENE	DATE	X-RAY
DIET	6/13	BED BATH self	6/13	Flat & upright abdomen
6/13 NPO		TUB/SHOWER	DATE	ACTIVITIES
FLUIDS		MOUTH CARE		BED REST
6/13 I & O q 8 h.		OTHER	6/13	AMBULATE w walker 6x/day.
RESTRICT	DATE	DRAINAGE - TUBES		TURN
FORCE				ROM
7-3 ml.	DATE	BLADDER - BOWEL		RESTRAINTS
3-11 ml.		FOLEY		TRACTION
11-7 ml.		CATH CARE		LAPIDUS DATE 6/13 <u>OHE</u>
S & A		BOWEL CARE		PT
CHEM. STRIP	LAST BM		DATE	VITAL SIGNS q4h
HEMOCCULT	WEIGHT <input type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS

SURGERIES AND DATES 6/14 Sigmoidoscopy	ISOLATION
--	-----------

DX Possible bowel obstruction	AGE 68
ROOM NAME Horness, Helen	ADMIT DATE 6-13-83
DOCTOR Friedman	



## NURSING CARE GUIDE

DATE		PROBLEMS \ NURSING DIAGNOSES		DATE		INTERVENTIONS			
6/14		Having loose stools Related to probable viral enteritis				Assess color, freq., consistency of all stools Weigh diapers Maintain IV on schedule Assess I+O q8h, wt daily, changes in LOC, skin turgor, mucous membranes q4h. Clean perineum well after each B.M.			
		Potential excoriation of buttocks Related to diarrhea							
DATE		MEDICATIONS		DATE		TREATMENTS			
6/14		Ampicillin 300 mg. 'IV' q4h.		6/14		Test urine for acetone qd.			
DATE		I.V. THERAPY		DATE		LABORATORY			
6/14		D-5-O.2 Saline 90cc/hr for 8hr. then 70cc/hr. Add KCl 2 mEq to ea. 100cc		6/14		Het. WBC			
DATE		RESPIRATORY THERAPY		DATE		PATIENT EDUCATION			
		LITERS/MIN: _____							
		IPPB: _____							
FOOD ALLERGY		DATE		HYGIENE		DATE		X-RAY	
DIET		6/14		BED BATH					
6/14 NPO except ice chips				TUB/SHOWER		DATE		ACTIVITIES	
FLUIDS				MOUTH CARE		6/14		BED REST	
6/14 I & O q8h				OTHER				AMBULATE	
6/15 RESTRICT 1oz. H <sub>2</sub> O qh.		DATE		DRAINAGE - TUBES				TURN	
FORCE								ROM	
7-3 ml.		DATE		BLADDER - BOWEL				RESTRAINTS	
3-11 ml.				FOLEY				TRACTION	
11-7 ml.				CATH CARE				LAPIDUS	
S & A				BOWEL CARE				DATE	
CHEM. STRIP		LAST BM				DATE		OHF	
HEMOCCULT		WEIGHT qd		<input checked="" type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE				PT	
								VITAL SIGNS q2h	
								NEUROS	
SURGERIES AND DATES								ISOLATION	
DX Diarrhea <td colspan="2"></td>									
ROOM		NAME Carter, Cynthia			DOCTOR Peds			AGE 2	
								ADMIT DATE 6-14-83	

NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS
6/15	May develop constipation related to pain, pressure on incision		Give Colace as ordered
			Increase fluids to 3000 cc/day
			Assess diet for bulk
	Incisional pain related to surgery		Give Sitz bath when pain occurs

DATE	MEDICATIONS	DATE	TREATMENTS
6/15	Colace 100mg. p.o. bid.	6/15	Tucks at bedside prn
	Tylenol #3 $\dot{\text{I}}$ p.o. q3-4h. prn		
	Nexibutal 50 mg. p.o. hs prn May apendx		

DATE	I.V. THERAPY	DATE	LABORATORY
		6/14	CBC, PTT

DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION
	LITERS/MIN: _____		
	IPPB: _____		

FOOD ALLERGY	DATE	HYGIENE	DATE	X-RAY
DIET		BED BATH		
6/15 as tol.	6/15	TUB/SHOWER Sitz bath qid.	DATE	ACTIVITIES
FLUIDS		MOUTH CARE		BED REST
6/15 I & O q8h		OTHER	6/15	AMBULATE ad lib
RESTRICT	DATE	DRAINAGE -- TUBES		TURN
FORCE				ROM
7-3 ml.	DATE	BLADDER -- BOWEL		RESTRAINTS
3-11 ml.		FOLEY		TRACTION
11-7 ml.		CATH CARE		LAPIDUS DATE OHF
S & A		BOWEL CARE		PT
CHEM. STRIP	LAST BM		DATE	VITAL SIGNS q8h.
HEMOCCULT	WEIGHT <input type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS

SURGERIES AND DATES 6/15 Hemorrhoidectomy			ISOLATION	
DX Hemorrhoids		AGE 38		
ROOM	NAME Jetson, Janet	DOCTOR Gomez	ADMIT DATE 6/14/83	

NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS
6/12	May develop perforated ulcer, bleeding, hemorrhage Related to ulcer erosion		Assess US q4h for S/S shock; abd. soft. Monitor any vomiting, stools for blood Give Maalox q2h
6/12	Weak, dizzy when up Related to previous blood loss + Hgb. 9.5		Assist when up to prevent falls, excessive fatigue
6/17	Anxious Regarding ulcers + time away from work Related to independent business owner, Resp. stay 1 wk		Spend 15 min. / shift w pt + allow verbalization of concerns

DATE	MEDICATIONS	DATE	TREATMENTS
6/14	Demerd 50 mg. } 'm' q4h prn pain Phenergan 25 mg.		
6/12	Tegamet 300 mg. p.o. tid ac + hs Maalox 15cc p.o. q2h.		

DATE	I.V. THERAPY	DATE	LABORATORY
		6/12	Hgb., Hct.

DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION
	LITERS/MIN: _____		
	IPPB: _____	DATE	DISCHARGE PLANNING

FOOD ALLERGY	DATE	HYGIENE	DATE	X-RAY
DIET	6/12	BED BATH self	6/12	GI Series
6/12 Bland z betw meal flaps	6/14	TUB/SHOWER z assist	DATE	ACTIVITIES
FLUIDS		MOUTH CARE		BED REST
6/12 I & O q8h		OTHER	6/12	AMBULATE z assist
RESTRICT	DATE	DRAINAGE - TUBES		TURN
FORCE				ROM
7-3 ml.	DATE	BLADDER - BOWEL		RESTRAINTS
3-11 ml.		FOLEY		TRACTION
11-7 ml.		CATH CARE		LAPIDUS DATE OHF
S & A		BOWEL CARE		PT
CHEM. STRIP	LAST BM		DATE	VITAL SIGNS q4h
HEMOCCULT all stools	WEIGHT <input type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS

SURGERIES AND DATES			ISOLATION
DX	Bleeding Peptic Ulcer		AGE 29
ROOM	NAME	DOCTOR	ADMIT DATE
	Morris, Martin	Smythe	6-12-83



NURSING CARE GUIDE

DATE	PROBLEMS \ NURSING DIAGNOSES	DATE	INTERVENTIONS
5/21	Itching Related to ↑ bilirubin		Use soothing lotions
			Keep nails short, encourage not to scratch
5/23	Nausea, anorexia Related to hepatic engorgement		Identify food likes, dislikes, normal food habits + schedules
	Worried about giving hepatitis to children Related to lack of understanding of how transmitted.		Explain how transmission can occur + how to prevent it.

DATE	MEDICATIONS	DATE	TREATMENTS
5/21	Theraquan cap.† p.o. daily		
	Mefoxin qm.† '10' q 6h		
	Compazine 10 mg. '1M' q 4h prn nausea		
	Tylenol #3 † p.o. q 4h prn		
	Aldactazide cap.† p.o. daily		
	Tagamet 300 mg. p.o. qid.		

DATE	I.V. THERAPY	DATE	LABORATORY
5/21	1000 cc D-5-0.45 NS E KEL 20 mEq. at 12Sec/hr	5/22	Blood culture, Stool culture
			Cath spec urine for C+S

DATE	RESPIRATORY THERAPY	DATE	PATIENT EDUCATION
	LITERS/MIN: _____		
	IPPB: _____		

FOOD ALLERGY	DATE	HYGIENE	DATE	X-RAY
DIET	5/21	BED BATH	5/22	GB sonogram
5/21 Full liquid		TUB/SHOWER	DATE	ACTIVITIES
FLUIDS		MOUTH CARE	5/21	BED REST E BRP
I & O q 8 h.		OTHER		AMBULATE
RESTRICT	DATE	DRAINAGE - TUBES		TURN
FORCE				ROM
7-3 ml.	DATE	BLADDER - BOWEL		RESTRAINTS
3-11 ml.		FOLEY		TRACTION
11-7 ml.		CATH CARE		LAPIDUS DATE OHF
S & A		BOWEL CARE		PT
CHEM. STRIP	LAST BM 5/21		DATE	VITAL SIGNS q 4h
HEMOCCULT	WEIGHT qd. <input checked="" type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE			NEUROS

SURGERIES AND DATES			ISOLATION Enteric, Blood	
DX	Chronic Hepatitis B		AGE	30
ROOM	NAME	DOCTOR	ADMIT DATE	
	Kong, David	White	5/21/83	

## NURSING CARE GUIDE

DATE		PROBLEMS \ NURSING DIAGNOSES		DATE		INTERVENTIONS			
6/11		May develop Resp. insufficiency post-surg. related to hx asthma & excessive smoking Anxious Related to Surg & unfamiliar environment				teach, explain importance of deep breathing p surg. Explain pre-op, post-op Routines Explain all activities			
DATE		MEDICATIONS		DATE		TREATMENTS			
6/11		Dalmane 30 mg. p.o. hs. Demerol 100 mg. q 4H' on call Atropine 0.4 mg.		6/11		Betadine prep & shave both groins			
DATE		I.V. THERAPY		DATE		LABORATORY			
				6/11		Hgb, Hct, PTT			
DATE		RESPIRATORY THERAPY		DATE		PATIENT EDUCATION			
		LITERS/MIN: _____							
		IPPB: _____		DATE		DISCHARGE PLANNING			
FOOD ALLERGY		DATE		HYGIENE		DATE		X-RAY	
DIET				BED BATH					
6/11 Req		6/11		TUB/SHOWER		DATE		ACTIVITIES	
FLUIDS				MOUTH CARE				BED REST	
I & O				OTHER		6/11		AMBULATE	
RESTRICT		DATE		DRAINAGE - TUBES				TURN	
FORCE								ROM	
7-3 ml.		DATE		BLADDER - BOWEL				RESTRAINTS	
3-11 ml.				FOLEY				TRACTION	
11-7 ml.				CATH CARE				LAPIDUS	
S & A				BOWEL CARE				DATE	
CHEM. STRIP		LAST BM						OHF	
HEMOCCULT		WEIGHT		<input type="checkbox"/> STANDING <input type="checkbox"/> BEDSCALE				PT	
						DATE		VITAL SIGNS Routine	
								NEUROS	
SURGERIES AND DATES		6/12 Bilat. Inguinal Herniorrhaphy						ISOLATION	
DX		Bilat Inguinal Hernias						AGE 17	
ROOM		NAME Rupsure, Robert						ADMIT DATE	
		DOCTOR Brown							



**Laboratory Tests Ordered for Helen Horness**

Electrolytes  
Urinalysis  
Hematology  
Chem 16

---

When and where will you look for the results of these tests?

How can you check the implications of these tests?

**Laboratory Test Results for Cynthia Carter**

Hgb 12.5 gm	Hct 37	Na 137	Urine pH 5
RBC 6,500,000	WBC 6,900	K 44	Ketones 3+
		Bicarb 18	
		Cl 105	

---

What does this lab report indicate?

What signs and symptoms would you expect to find when you see Cindy?

**Laboratory Test Results for Janet Jetson**

Bleeding and clotting time: 6/14  
2 min  
4 min

---

What if the results were 5 minutes and 10 minutes?

What does this mean for a patient scheduled for surgery?

**Laboratory Results for Martin Morris**

---

<i>Adm.</i>	<i>6/12</i>	<i>After 2 Units of Blood 6/13</i>	<i>6/14</i>
Hgb	10	14	14.4
Hct	47	43	45
Stool, occult	4+	4+	1+

---

How do lab tests indicate if a patient is still bleeding?

How does dehydration affect Hgb? Hct?

**Laboratory Report for David Kong**

Total serum bilirubin 3

HbsAg +

Amylase 150

PTT 14 sec, 46%

Platelet count 71,000

Reticulocyte count 1%

SGOT 55

---

What do these lab reports indicate?

How will this affect your nursing care?

**Laboratory Tests Ordered for Robert Rupsure**

Routine urinalysis

Routine blood work

---

You fill in the tests you would want to check before you sign that Rob is ready for surgery.

**3. Practice** in campus lab, with another student as your partner, doing a physical assessment of the abdomen and GI system.

**4. Plan** for a clinical experience.

▲ Admit at least one patient who has an alteration in gastrointestinal function. Immediately after admitting the patient, write what you did; evaluate your strengths and weaknesses. Did you try to shift your weaknesses to the “strength” column? Write down changes you would make for your next admission. Ask another student to evaluate your next admission.

▲ Practice your observation skills. Select a patient who is receiving a variety of treatments to observe for 3-minutes. When you leave the room, write down everything you

observed. Compare your list with another student's who has done the same thing. What are your strengths and weaknesses in observation? Repeat the experience with another patient and see if you make more accurate observations.

- ▲ Auscultate for bowel sounds.
- ▲ Write a nursing care plan after you have done a nursing assessment on your patient. After caring for the patient, bring the NCP to postconference to share.



# OBJECTIVES

## *GI Laboratory/Diagnostic Tests*



3. Given a list of diagnostic tests, explain the purpose, and list at least three preparatory and after-test nursing actions and rationales that are required for each test. (Your instructor will provide the list of tests.)



4. Given an order for laboratory tests of stool specimens (for example, routine, parasite, or occult blood), demonstrate carrying out the order with minimal direction.

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** diagnostic tests. Have you or someone you know waited for results and then been told that a test needed to be repeated because the results were not adequate? How did you feel? Angry at the delay? Anxious that you weren't being told the whole story? As a hospital patient how much more concerned might you be about delays? More money and more worry! Be careful and avoid delays for your patient.

When diagnostic tests are ordered, what do these mean to your patient? To you?

**REMEMBER THAT IF YOU FORGET A STEP, OR LEAVE YOUR PATIENT UNPREPARED, IT COULD MEAN AN EXTRA DAY IN THE HOSPITAL TO GO THROUGH THE TESTS AGAIN.**

How can you find out exactly how to carry out these nursing measures for your patient? How dependable do you want to be? What kind of nurse does your patient have?

### 2. **View** audiovisuals.

"Diagnostic Tests I" (CM): #1 Technology of diagnostic Testing; #2 Specimens: Urine, Stool, and Sputum; #5 and #6, Gastrointestinal System, Parts 1 and 2".

"Silent Suffering: (16 min. SKF) Patient with an ulcer has many diagnostic tests.

3. **Read** about the diagnostic tests listed in Objective 3 and about the following diagnoses: *intestinal obstruction, pyloric stenosis, gastroenteritis, vertigo, duodenal and gastric ulcers, hemorrhoids, hernias, cholecystitis, and pancreatitis.*

**Review** the anatomy and physiology of the gastrointestinal system if needed.

### **Books**

*Assessment*, Springhouse, PA, Intermed Communications, Inc., 1982, Chapter 11, "Gastrointestinal System".



- Diagnostics*, Springhouse, PA, Intermed Communications, Inc., 1981. Chapter 1, "Hematology"; Chapter 12, "Urinalysis"; Chapter 27, "Gastrointestinal System."
- Diseases*, Springhouse, PA, Intermed Communications, Inc., 1981, Chapter 10, "Gastrointestinal Disorders."
- McFarland, Mary B., and Grant, Marcia M., *Nursing Implications of Laboratory Tests*, New York, Wiley, 1982, Chapter 8, "Laboratory Tests of Biliary and Gastrointestinal Function."
- Performing GI Procedures* (Nursing Photobook), Horsham, PA, Intermed Communications, Inc., 1981.
- Smith, and Duell, 1982, "Cholecystogram, Cholangiogram," p. 295; "Preparing the Client for Barium Studies," p. 305; "Collecting a Stool Specimen, Adult, Infant, or Child," p. 434; "Assisting Physicians with Diagnostic Procedures: Paracentesis, Thoracentesis, Proctoscopy, Gastroscopy, Amniocentesis," p. 308.
- Whitson, Betty Jo, and McFarlane, Judith M., *The Pediatric Nursing Skills Manual*, New York, Wiley, 1980, "Specimen Collection, Stool, pp. 235-236."

## Journals

- Beck, Marjorie, "Diagnostic Tests," *Nursing 81*, January-July. (A series of seven articles on G.I. diagnostic tests.)
- "Deciphering Diagnostic Studies; White Blood Cell Tests," *Nursing 82*, January, p. 122.
- "Deciphering Diagnostic Studies: Serum Bilirubin," *Nursing 82*, November, p. 137.
- Haughey, C., "Understanding Ultrasonography," *Nursing 81*, April, pp. 100-104. (What it is, how it works, and patient preparation.)
- McConnell, Edwina, "Urinalysis: A Common Test, But Never Routine," *Nursing 82*, February, p. 108.

## 4. Write what you would *do* if you observed the following stools and what *other problems* might also be present because of the stools.

A patient with ulcerative colitis has a very watery stool with streaks of mucus and a few streaks of blood.

A patient with a duodenal ulcer has a tarry stool.

An infant has severe diarrhea that resembles "currant jelly."

A patient with possible gastric ulcer who had a G.I. series and a barium enema two days ago has a grayish, whitish, glistening stool.

A patient with a healing gastric ulcer is on Amphojel, a modified bland diet, and ferrous sulfate because of a low Hgb; he has a black, almost tarry stool.

What would you think if your patient had a fatty, frothy stool?

Three-month-old infant with greenish liquid stools.

What G.I. problem would you expect of your patient who has a clay-colored stool?

How do you test for pinworms?

## B. PUTTING IT INTO ACTION!

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1. **Attend** a small group discussion on “Interpreting Diagnostic Studies.” Come prepared to talk about the diagnostic studies listed in Objective 3 and the laboratory procedures from Objective 4. Note how different results can have different meanings dependent on other diagnostic study values.

2. **Write** the differences in the procedure for collecting stool specimens:

*Type of Specimen*

*Specific Difference in Procedure*

Routine stool specimen

Stool for parasites

Stool for bacteria

Stool for occult blood

How would you collect a specimen for Cindy Carter? David Kong? See pages 420, 423. What would you do if they didn’t have a stool and you needed to collect a stool culture?

3. **Plan** for a clinical experience.

- ▲ Observe as many of the diagnostic procedures as possible. Note what special precautions are taken before you are allowed to watch a radiological procedure. Listen to the explanation given by the technicians. Note how long the patients have to wait, and in what kind of surroundings. Are they comfortable? Warm? Cold? How tasty do patients find barium? How can you tell? How do patients react to the x-ray table?  
How will you prepare the next patient you send to x-ray?
- ▲ Observe an endoscopy as an RN assists a physician. List the actions taken by the nurse before, during, and after the procedure.
- ▲ Care for babies and young children in both the newborn nursery and pediatrics. Note the color and consistency of stools. Speculate as to the cause.
- ▲ Collect a stool specimen for each of the laboratory tests in Objective 4 or, if no specimens are ordered, “walk through” the procedure. Review your answers to the questions in B-2.



## OBJECTIVES

### *Diet Changes*



5. Discuss the changes in a normal diet that would be beneficial for the following GI disorders: constipation, diarrhea, diverticulitis, colitis, gall bladder disease, ulcer, lactase deficiency, hiatal hernia, dumping syndrome, colostomy, celiac disease, hepatitis.



6. Use the nursing process to develop a plan of care for a patient with a nutritional problem.



7. Describe, orally or in writing, hyperalimentation including the nutrients administered and at least three nursing implications.

[Note: You will learn more about hyperalimentation and give more complete care to patients receiving this therapy in LEG X-B.]

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** how food influences your feeling of well-being (eating after hunger pangs) or feeling of not-so-well-being (overeating a big dinner or eating food that “disagrees”). What is the purpose of food? How does the body use food? When does food become especially satisfying to you? What kinds of food do you think of when you are “nervous and upset?” What foods are most soothing after an “upset stomach?” As you find out what dietary regimes are prescribed for patients with gastrointestinal problems, you will see that many common foods are used to soothe and heal the digestive tract. You will need to learn what specific factors are involved and help your patients understand the importance of “sticking to their diets.”

#### 2. View audiovisuals.

“Diet Unto Death: Anorexia Nervosa” (13 min, UCLA, UM), 1980.

“Tipping the Scales: Fat and Thin” (55 min, F), 1982.

“Water Series: Your Diet” (10 min, UM), 1981.

“The Heimlich Maneuver: How to Save a Choking Victim” (17 min, UM), 1982.

“Absorption” (20 min, EL), 1973.

“A Microscopic Look at Digestion” (21 min, BAN), 1983.

“Enteral Hyperalimentation: Techniques of Intubation—Prevention and Treatment of Complications” (15 min, EL), 1974.

“The Operation of the Flexiflo II Pump” (10 min, RS), 1983.

“Home Enteral Hyperalimentation” (17 min, RS), 1983.

- “Principles of Enteral Tube Feeding” (RS), 1982.
  - Part 1: “Nutrient Needs and Formula Selection” (17 min).
  - Part 2: “Administration and Monitoring” (14 min).
  - Part 3: “Metabolic Monitoring” (14 min).

- “Dangerous Dieting: The Wrong Way to Lose Weight” (HRM).
  - Part 1: “The Losing Battle.”
  - Part 2: “Rating the Diets.”
  - Part 3: “Eating Disorders.”

**3. Read** about the *diets* and *health problems* listed in Objective 5 and about *hyperalimentation*.

- Review Volume I on nutrition, fluids, and diet needs.
- Look ahead to LEG X-B, parenteral hyperalimentation.

**Books**

- Bodinski, 1982, Chapter 6, “Diet Therapy in Gastrointestinal Disorders,” p. 67; Chapter 22, “Enteral Nutrition,” p. 300; Chapter 24, “Central Vein Intravenous Nutrition,” p. 320.
- Green, Marilyn L., and Harry, Joann, *Nutrition in Contemporary Nursing Practice*, New York, Wiley, 1981.
- Robinson, et al 1982:
  - 9. “Career Woman with Duodenal Ulcer.”
  - 11. “Man with Diverticulosis (Mexican-American).”
  - 15. “Middle-age Woman with Cholecystitis (Native American).”
  - 16. “Salesman with Gastrectomy and Dumping Syndrome (Greek-American).”
- Smith and Duell, 1982, “Providing Appropriate Nutrition,” p. 516; “Administering Therapeutic Diets,” p. 519; “Providing Diets Associated with Fiber Control, Bland Food Diets, Diets Associated with Vitamin and Mineral Control,” pp. 522, 523; “Providing Total Parenteral Nutrition (Hyperalimentation),” p. 529; “Providing Enteral Feedings via Needle Catheter Jejunostomy Tube,” p. 539.

**Journals**

- Giordano, Carmel, and Conly, Dori, “Taking the Worry out of Hyperal, Part I,” *RN*, June 1981, p. 42.
- “Taking the Worry out of Hyperal, Part II,” *RN*, July 1981, p. 50.
- Misik, A., “Dr. Evans, Obsessed with Food, Was Starving Himself,” *Nursing 80*, March, pp. 54–56.
- Troupe, Carolyn Flemming, “Don’t Give Up on the ‘Hopelessly’ Obese,” *RN*, April 1981, p. 71.

**4. List** the appropriate diet, actions, or results desired and the nursing implications for the patient conditions listed in the chart on page 435.



<i>Patient Condition</i>	<i>Diet Change Required</i>	<i>Desired Action</i>	<i>Nursing Implications</i>
Obesity			
Diverticulitis			
Ulcer			
Celiac disease			
Colostomy			
Ulcerative colitis			
Constipation			
Diarrhea			
Hepatitis			
Cholecystitis			
Vomiting			
Dumping syndrome			
Lactase deficiency			
Hiatal hernia			

5. **Plan** and eat a lunch menu appropriate for a graduated bland diet. How appealing do you think this menu would be to Mr. R., who is a goal-oriented man of 35, successful in business, and presently hospitalized for an ulcer? Are there any ideas you have to make the menu and the meal presentation well-accepted by Mr. R.?

Plan and eat a low-carbohydrate dinner menu. What types of foods are particularly appropriate to this type of diet? Which types of foods did you need to reduce or eliminate from the menu? Is this type of diet appropriate for people trying to lose weight?

What would you include in a dietary assessment? (See Bodinski, 1982, "Nutritional Assessment," pp. 36-44, and Smith and Duell, 1982, p. 517.)

6. **List** two reasons a patient might receive parenteral hyperalimentation therapy. What are the nursing problems associated with parenteral hyperalimentation?

7. **Interview** someone who has been hospitalized with an ulcer or gall bladder problem. If you do not know someone who can be interviewed for these problems, interview a person who has been on a weight reduction regimen because of a physician's recommendation to do so. In your interview, try to obtain information regarding the following:

1. What type of diet was followed?
2. If the diet was served in the hospital, how satisfying was it? Were some foods on the tray ignored?
3. Did the diet include favorite foods?
4. How long was the diet followed?

5. Was there a desire to "cheat" on the diet? If so, what kinds of foods were eaten in addition to the diet?
6. What information about special diet instructions was given to the patient and to the patient's family?

Present a summary of your interview at the group discussion. Look for commonalities in the reports.

Discuss how nurses can aid patients and dietitians in meeting the nutritional needs of patients on special diets.

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

1. **Describe** how you will plan care for the following patient with a nutritional problem, using the steps of the nursing process. You may add facts or assume certain conditions if you include them in your assessment. How will you evaluate your plan? Be specific!

Mr. Frank Frale, age 76, was brought to the hospital two days before you are assigned to give him care. A volunteer community worker found him sitting motionless on his porch, too weak to care for himself. You note that he is quiet and does not react to his "roommate," Mr. Morris, or to general hospital routines. During report you learn that his admission diagnosis is malnutrition; his admission weight was 151 lb. (You remember he seemed tall in the bed.) The day nurse says, "He has no interest in anything; I can hardly get him to talk."

Take it from here:

- Write out other facts that can be found in the admission history and write your assumptions, solutions, rationales, and evaluations.
- Develop two possible alternative approaches you could use if your solution doesn't work.
- How will you involve the patient in the decision-making process?

Bring your answers to the group discussion.

2. **Attend** a small group discussion on "Nutritional Problems Related to GI Diseases." Write nursing diagnoses and set goals and interventions for the following patients:

Mrs. Plum, age 27, with two small children, hospitalized for depression. She is 5'5", weighs 193 lbs., and told you, "I'm so tired all I do is eat and sleep."

Mrs. Nelson, age 51, cholecystitis and obesity; complains of severe colicky pain but just loves pork chops and bacon.

Mr. Morris (see Kardex p. 422) is on a bland diet. He hates "diet rules."

Mrs. Jetson, after surgery, is extremely fearful of constipation. "I have always had to take laxatives."

Dr. Kong, age 30, is recovering from a severe bout of hepatitis. He is still jaundiced and has anorexia.

Mr. Ceva, age 73, is recovering from a cerebral vascular accident (stroke) and is on a dental soft diet. His right side is paralyzed, and he is unable to use his left hand well. His skin and mucous membranes appear dehydrated.

Baby Celia, 9 months, had a viral infection two months ago. Since then she has failed to gain weight and shows little interest in eating. She cries a lot and doesn't want to crawl around and play. Her stools are frothy, with a foul odor. She is admitted with possible celiac disease.

- How and when would you decide that the problem is not solved and needs a different approach? How would you decide on alternatives?
3. **Practice** in campus lab doing dietary assessment of a friend or family member prior to your clinical experience.
4. **Plan** for a clinical experience.
- ▲ Observe special diets being served to patients of all ages. If you question any foods on the tray, ask about them in the diet kitchen or check the diet manual.
  - ▲ Talk with patients about their diet. Is it appealing? Soothing? What would they prefer? How can you help?
  - ▲ Make a dietary assessment on one patient and bring it to postconference.
  - ▲ Visit the diet kitchen in your hospital. Look at the trays as they are prepared. Talk with the dietitian about the problems of creating therapeutic diets that appeal to patients and the specific disorders listed in Objectives 5 and 11.
  - ▲ Help patients select foods from daily hospital diet lists.
  - ▲ Obtain daily diet lists from your hospital; practice adapting basic menus to special dietary requirements.
  - ▲ Observe and assist in caring for patients receiving hyperalimentation therapy. What special nursing care is required? Where is the solution prepared? What complications could occur because of the treatment?



# OBJECTIVES

## *Pharmacology*



8. *Given two trade or generic names of drugs in the following classification—sedative, antacid, anticholinergic, analgesic, anti-inflammatory, anti-infective, antipruritic, cathartic, antidiarrheic, digestant, vitamins, and minerals—describe the route of administration, intended action and/or use for gastrointestinal problems, untoward effects, and nursing implications of each. (Your instructor will provide you with a list of suggested drugs.)*



9. *Given a list of drugs in the following classifications—anticholinergic, histamine  $H_2$  antagonist, analgesic, and antacid—describe how each medication acts differently to relieve pain. (Your instructor will provide a drug list.)*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** drugs used for gastrointestinal problems. These are frequently “home remedies” and can be purchased over the counter without prescription. Look in your own medicine cabinet at home. How many do you see that fit into the classifications listed in Objectives 8 and 9? Start with these as you think about how they soothe irritated mucosal linings, curb diarrhea, sweeten “sour stomachs.” Note that many of the drugs are the same as those used for other problems. Find out how certain drug classifications can fit into treatment of different types of problems (e.g., preoperative medication, asthma, and gastrointestinal problems). What G.I. problems can antacids cause?

2. **Review** drug classifications in Volume I.

3. **Review** drug classifications (and specific drugs) used and discussed in other LEGS of Volume II. Make a list of the drugs that are used for more than one type of problem. For an example, see the chart on p. 440 and ask yourself:

How does the amount of drug given influence its action (e.g., milk of magnesia)? Look for other drugs with a variety of uses. How do soda bicarb and Alka Seltzer affect the body's buffer system? How do Maalox and MOM affect the buffer system? How do you explain this to a patient? Try it with someone who always takes soda for a “sour stomach.”



<i>Name of Drug and/or Classification</i>	<i>G.I. Use</i>	<i>Other Use</i>
atropine	antispasmodic antisecretory	mydriatic for eye problems
morphine		
prednisone		
Tagamet		

4. Read in pharmacology references. Look in the index under the drug classifications listed in Objective 8 and under specific drug names in a PDR.

#### Book

Loebl, Suzanne, et al., *The Nurse's Drug Handbook*, 3rd ed., New York, Wiley, 1983.

#### Journals

Burke, W., "Tagamet, What You Should Know About New Drug Therapy for Peptic Ulcers," *Nursing* 80, April, p. 43.

Coblio, Nicholas A., "Don't Combine Those Drugs!" *Nursing* 81, August, p. 48.

Giovannitta, Christine, and Schwinghammer, Terry, "Food and Drugs: Managing the Right Mix for Your Patient," *Nursing* 81, July, p. 26.

Rodman, Morton J., "The Drug Interactions We All Overlook," *RN*, September–December 1980. (A four-part series.)

—, "Diarrhea: Think Twice Before Giving Meds," *RN*, October 1980, p. 73.

Rosenberg, Jack M., and Sangkachand, Pongsri, "Take with Meals; . . . Or Not?" *RN*, May and June, 1981.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Look at the over-the-counter vitamin and mineral preparations. Note the amounts and variety included in each product. Which vitamins are stored by the body? Why is it important to note the specific vitamin content in each product? What would you say to a patient (or a child-patient's mother) if she asked you about taking a vitamin preparation?

2. Write the answers to the following questions: Which vitamin may need to be supplemented for children who suffer with an interference with fat absorption due to cystic

fibrosis? (See LEG VI-C) \_\_\_\_\_. Which vitamin is found abundantly in orange juice, cabbage, and tomato juice? \_\_\_\_\_. Which vitamin is found in abundance in milk and orange juice? \_\_\_\_\_. Which vitamin may be lacking in premature infants and may need to be supplemented? \_\_\_\_\_. Which vitamin is found in fish and egg yolk? \_\_\_\_\_. Does vitamin D come "down on a sunbeam?" Explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Why do rickets ( $\downarrow$  vitamin D) occur more frequently in black babies in winter months than in white babies who may be outdoors with only their faces exposed?

\_\_\_\_\_

\_\_\_\_\_

What vitamin may need to be supplemented for children who have allergies and are on a milk-free diet? What is the relationship of vitamin D to calcium? \_\_\_\_\_

\_\_\_\_\_

What minerals are of prime importance in ECF and ICF? \_\_\_\_\_

Which mineral is necessary for the production of hemoglobin? \_\_\_\_\_. When giving iron supplements to infants and children in order not to irritate the gastric mucosa would you give it: after meals? once a day? three times a day? between meals (1 hour before)?

Give two examples of digestants \_\_\_\_\_.

When are these drugs most likely to be used?

Which age group is most likely to need them? Why?

What are some nursing implications when these medications are being administered?

List three ways antacids work: \_\_\_\_\_.

Describe the side effects of antacids that contain:

magnesium \_\_\_\_\_

aluminum or calcium \_\_\_\_\_

sodium bicarbonate \_\_\_\_\_

List some nursing implications for patients taking Amphojel, Tums, Rolaids, Riopan, milk of magnesia, Gelusil, and Maalox. Which would be better for patients with chronic constipation? Diarrhea? Ulcer-prone?

Select one or more of the above answers and state your rationale below.

3. Note drugs listed on Kardexes in this LEG. Look up all of those unfamiliar to you.













Be sure you know the classification, action, and use in each specific instance. List at least two side effects you would watch for.

**4. Plan for a clinical experience.**

- ▲ List drugs being given to patients. Identify classifications, side effects, and expected reactions. Read charts for signs of side effects. Talk with patients. Do they know what they are getting? Should they? Which drugs are kept at the bedside and why?
- ▲ Administer medications to groups of patients. Evaluate and compare your strengths and weaknesses with your performance at Levels Six and Seven. What areas need further practice and work? List these below. What are you doing to improve?  
Complete a drug card for each medication you administer.
- ▲ Discuss the use of drugs for the GI system with a pharmacist. Find out which drugs are commonly misused by patients at home and what education patients need prior to discharge.

## OBJECTIVES

### *Medical Care for GI Problems*

-    10. Given a patient situation and a treatment plan, write a teaching and discharge plan for any of the following inflammatory conditions: diverticulitis, ulcerative colitis, Crohn's disease, gastroenteritis. 
-    11. Given one of the following malabsorption problems, develop a patient teaching plan with emphasis on meeting the patient's nutritional needs: celiac disease, dumping syndrome, lactase deficiency. 
-    12. Describe the assessment and nursing interventions to promote wellness for the patient who is receiving conservative medical treatment for any of the following conditions: ulcers, cholecystitis, cholelithiasis, diverticulitis. 

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

##### 1. **Think about** the whole process of absorption of nutrients.

This really is the reason for the process of digestion. The food we eat must be broken down to an appropriate form for absorption. What happens to individuals who have an intolerance for certain foods? What if this intolerance is to a basic substance such as *gluten*, which is found in most grains? What about babies who have an intolerance to lactose? How are their diets adjusted to provide the nutrition they need to grow and develop? How would you feel if you could never again drink milk or eat bread?

##### 2. **View** audiovisuals.

"Physiology of the Upper Gastrointestinal Tract" (TR), 1984.

"Physiology of the Lower Gastrointestinal Tract" (TR), 1984.

"Pathophysiology of Gastroduodenal Ulceration" (TR), 1984.

"Care of the Patient with a Gastroduodenal Ulcer" (TR), 1984.

3. **Read** about *malabsorption problems, ulcerative colitis, peptic, and duodenal ulcers, jaundice, intestinal bypass, diverticulitis, Crohn's, gastroenteritis, celiac disease, lactase deficiency, cholelithiasis, cholecystitis*



## Books

- Atkinson, and Murray, 1983, "Developing a Teaching Plan," pp. 50-55.
- Blondis, and Jackson, 1982, "Growing Patient Awareness," p. 240. A patient's postoperative care plan would include changes in life-style. The patient example is that of an ulcer patient. We must allow the individual patient more responsibility for his or her own well-being.
- Bodinski, 1982, "Celiac Disease: Gluten-Induced Enteropathy," p. 711; "Dumping Syndrome," p. 78; "Lactase Deficiency (Lactose Intolerance)," p. 83; "Tropical Sprue," p. 89; "Regional Enteritis (Crohn's Disease)," p. 86.
- Given, Barbara A., and Simmons, Sandra J., *Gastroenterology in Clinical Nursing*, 4th ed., St. Louis, Mosby, 1983.
- Green, Marilyn and Harry, Joann, *Nutrition in Contemporary Nursing Practice*, Wiley, New York, 1981, pp. 656-663.
- Robinson, et al., 1982, 8, "Man with Massive Obesity and Jejunoileal Bypass Surgery" 10, "College Student with Ulcerative Colitis and an Ileostomy, short-term use of total parenteral nutrition."
- Stuart, Gail W. and Sundeen, Sandra J., *Principles and Practice of Psychiatric Nursing*, 2nd ed., St. Louis, Mosby, 1983, Chapter 7, "Anxiety."

## Journals

- Kroner, K., "Are You Prepared for Your Ulcerative Colitis Patient?" *Nursing* 80, April, p. 43.
- Richardson, Jamie, "The Manipulative Patient," *Nursing* 81, January, p. 48.
- Sanger, Eldine, and Cassino, Therese, "Eating Disorders; Avoiding the Power Struggle," *AJN*, January 1984, p. 31.
- Strauch, B., et al., "Caring Enough to Give Your Patient Control, Crohn's Disease: Chronic, Recurrent and Unpredictable," *Nursing* 80, August, p. 54.
- Toupe, Carolyn Fleming, "Don't Give Up on the 'Hopelessly' Obese," *RN*, April 1981, p. 71.

### 4. Compare the following inflammatory conditions:

Condition	Etiology	Symptoms	Diet	Teaching Needs
Diverticulitis				
Ulcerative colitis				
Crohn's disease				
Gastroenteritis				

### 5. Describe lactase deficiency.

- What formula preparations would be suitable for babies with lactase deficiency?
- Can these babies be breast-fed?
- List some foods that would supply the calcium needs of patients on lactase-free diets.

### 6. Explain why the "dumping syndrome" may occur. Describe the symptoms.



Select which of the following actions and foods may contribute to the dumping syndrome. State why after each selection.

Drinking a milkshake	Bowl of sugar-frosted flakes
High protein, low fat diet	Waffles and syrup
Light sponge cake for dessert	Mashed potatoes and gravy
High-protein, high-carbohydrate diet	Lying down after meals
Rest after eating	Glass of milk with each meal
Corn chips for a snack	Small dry meal
Eat small, frequent, dry meals	Juice between meals
Consume two glasses of fluid with meals	Chocolate cake
High-protein, high-fat diet	Roast beef

What other actions might you take to help a patient overcome the “dumping syndrome” complications? What health problems can it cause?

- Compare Celia’s problems p. 437 to problems of other patients who have had portions of their stomach or bowel removed. Malabsorption is the problem for both. What are the long term implications for diet? How can you help?

7. **Prepare** to care for patients receiving medical therapy for their gastrointestinal disturbances.

(a) Compare gastric and duodenal ulcers:

<i>Ulcer</i>	<i>Incidence</i>	<i>Etiology</i>	<i>Symptoms</i>
gastric			
duodenal			

- (b) To promote healing and wellness and to prevent the need for surgical intervention, it is important for the nurse to assist the patient in accepting, understanding, and adhering to the medical regime prescribed by the doctor. Complete the following:

<i>Condition</i>	<i>Symptoms</i>	<i>Medical Regime (Include Meds)</i>	<i>Pain Relief</i>	<i>Diet</i>	<i>Nursing Interventions</i>
ulcer					
diverticu- litis					
cholecys- titis					
choleli- thiasis					

- (c) What is the nursing responsibility in life-threatening GI bleeding?  
 (d) What is the effect of the medications these patients may be receiving on their fluid and electrolyte balance?

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

- Plan** a gluten-free lunch for yourself. How difficult was it to do? How would you share the information you have gained with a patient? What teaching aids would you need to develop?
- Write** a teaching plan for a patient with an alteration in GI function. Use a nutrition book as one of your resources. What type of permanent changes in eating habits must you anticipate your patient is going to have to make? Don't forget to involve other family members who might be doing the cooking. Think about the difficulties a person with celiac disease will have to face when eating in a restaurant. The next time you go grocery shopping spend some time reading labels. How many of the items you buy might contain grain by-products? How hard is it for you to tell just what might have been added to the basic product. How will you teach your patients what they have to know?
- Attend** a small group discussion on "Caring for Patients with GI Problems."  
 Use your answers in A-4 through A-7 to make a NCP for each of the following patients. Be sure to include teaching and discharge needs. Compare their symptoms and nursing diagnoses.

Identify the differences in giving nursing care based on their personal preferences or

needs. Describe the symptoms you would expect to see and feelings or attitudes that might be displayed by the patients related to their change in body image or ways of coping with stressful situations.

Mr. John Amarillo, age 58, admitted with nausea, vomiting, and ascites.

Mrs. Helen Martin, age 28, admitted because of constant diarrhea for the last six months.

Mr. Jack Speada, age 36, admitted because of "burning" "gnawing" pain in epigastric region "between meals."

Martin Morris with diagnosis of bleeding peptic ulcer. Kardex on p. 422.

Cynthia Carter with diagnosis of diarrhea. Kardex on p. 420.

### COMMENTS ON ACCEPTING PATIENTS BEHAVIORS

*You have learned that patients with acute heart disease may be uncooperative, and you know you must cope with this kind of behavior because of its negative influence on the patient's recovery. (Review LEG VII-C.)*

*Respiratory patients are notoriously hostile. Why not, when it is such an effort to take the next breath! "Nobody's doing anything to help me." (See LEG VI-C.)*

*Your description of the colitis or ulcer patients will depend on your experiences. These are not easy or "happy" patients. They can be hostile, demanding, uncooperative, and more, all at the same time. They, too, are reacting to a crisis (hospital admission) and threat to health and to a way of life, just as are your cardiac and respiratory patients. Use your "individualized" approach to these patients.*

*Accept them as they are. Sit down with them when hydrochloric acid begins to shoot into their empty stomachs, and "waves" begin in the jejunum, and they complain of pain, discomfort, lack of service, or care, and so on.*

*Evaluate your patient's reaction to your "involvement." Think about it. Mobilize your forces and try again. Keep involved! Force yourself to go in to the patient who is not "happy" and "good" before he or she rings for the nurse. Accept the challenge of these patients to improve and strengthen your nurse-patient relationships and broaden your understanding of human behavior.*

#### 4. Plan for a clinical experience.

- ▲ Seek out patients who are labeled "uncooperative," "demanding," making a difficult adjustment to hospital routines, name calling, and blaming nurses for care, suggestions, and so on. Give care to these patients or just talk! Can you identify the stressors? Defense mechanisms? What approach do you take toward the patient to "get through?" List measures you are going to take.
- ▲ Observe and talk with patients with GI problems. Read charts and look for charting of symptoms, lab reports, and treatments.

- ▲ Observe patients on the children's unit, adolescents, and each adult age group.

Take notes on the common GI problems of each age group. Share this information in postconference.

- ▲ Care for a patient with a malabsorption disorder.

How is your patient coping with the everyday problems associated with the disease? How does the family cope? Can you offer any suggestions that will make the day-to-day coping easier?

## OBJECTIVES

### *Hepatitis and Infection Control Measures*



13. Compare the causative factor and nursing implications for hepatitis A, hepatitis B, and non A, non B hepatitis.



14. Given a list of nursing actions, select those that would be required to initiate infection control precautions for each type of hepatitis.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** how diseases are spread. Refer to LEG VI-C for respiratory infectious diseases. Compare methods of preventing spread of infection from the respiratory route and the gastrointestinal routes. How does serum hepatitis differ in its means of spread? You will learn that if you know how the disease is spread and what chemicals kill the infecting organism, you can stop the spread of infectious diseases. Remember, if you know the problem and can protect yourself and others from contamination, you are safe; only the unknown can harm you. Number-one rule: **WASH YOUR HANDS!**

2. **Review** principles of infection control and medical asepsis in LEG III-C.

3. **View** audiovisuals.

"Isolating Communicable Enteric and Respiratory Diseases" (TR).

"Infection Control: Wound, Skin and Enteric Precautions" (CM).

4. **Read** about *types of hepatitis and infection control*.

#### **Book**

Smith and Duell, 1982, Chapter 4, "Maintaining Infection Control: Barrier Nursing."

#### **Journals**

Gannon, Rebecca Byrne, and Peckett, Karen, "Jaundice," *AJN*, March 1983, p. 404.

Gurevich, Inge, "Viral Hepatitis," *AJN*, April 1983, p. 571.

5. **Complete** the chart on page 450 after you read about viral and serum hepatitis.



	<i>Hepatitis A</i>	<i>Hepatitis B</i>	<i>NonANonB</i>	<i>Common Features</i>
Mode of transmission				
Carrier				
Incubation period				
Pre-icterus state				
Icterus state				
Convalescent time				
Treatment				
Prevention				

6. Complete the following chart as it relates to jaundice regardless of the cause

	<i>Patient with "Mild" Jaundice</i>	<i>Patient with "Moderate" Jaundice</i>	<i>Patient with "Severe" Jaundice</i>
Skin			
Sclerae			
Urine			
Stool			

Explain the cause of jaundice in the patient with hepatitis. What causes jaundice in the patient with cholecystitis?

#### COMMENTS ON JAUNDICE

*All patients with jaundice worry about how they look to others. This is normal and to be expected. However, the nurse not only needs to deal with the patient's concerns, but to be alert to signs and symptoms of changes in the patient's condition. One of the best ways is for the nurse—that's you!—to be aware of the significance of the color of various parts of the patient's body and of body secretions.*

*The skin and sclerae may be of a different color in persons with different*

*ethnic origins. The assessment of color is one of the hardest to do in nursing. Color descriptions are very subjective. Check with your classmates about the color "yellow" after drawing it on white paper, tan paper, and light brown paper. Do you all agree about what to call the resulting color? This is one of the many reasons that whenever possible the same nurse should do assessments on as many consecutive days as possible!*

## **B. PUTTING IT INTO ACTION!** \_\_\_\_\_

- 1. Write out** the steps you would take to admit the following patients with either hepatitis A or hepatitis B. Complete this after attending a clinical lab.

Mrs. Serus, age 48, was readmitted nine weeks after being discharged from your unit after a radical mastectomy. During her previous admission she had received 2 units of blood in surgery. On admission this time she is quite jaundiced, feels tired, has some abdominal discomfort, and is quite discouraged about her readmission.

Mr. Fekshus, age 26, was admitted with jaundice, temperature of 99.8°, anorexia, and flatulence. The physician asked him if he had received any injections or transfusions during the past six months. He replied, "No." The doctor then asked if he had been in contact with anyone who had had hepatitis recently. He said, "Yes, a man at work about a month ago was put on sick call; come to think of it, he is still out. The rumor is that he has hepatitis."

What type of hepatitis does each patient appear to have? How do you know this? How is each type transmitted? Write exactly how you would admit each patient. You may need to research your hospital policy to find out where the equipment is kept and how it is obtained. How would you collect a stool specimen in isolation?

- 2. Attend** a group discussion on "Care of the Patient with Hepatitis and Moderate Jaundice."

Review your answers to A-5 and A-6 to determine the probable course of illness for the following patient:

David Kong, age 30, is admitted with chronic hepatitis B. He is drowsy, slightly confused upon awakening, with a faraway look.

He looks yellow and has slight asterixis of the hands. His temperature is normal. He c/o anorexia and general malaise.

The doctor orders the following lab tests: amylase, hepatitis E antigen, PTT, platelets, reticulocyte count, S. bilirubin.

Give the rationale for each of the doctor's orders listed on the Kardex (page 423) and for the lab tests above.

Review the isolation precautions necessary to protect the other patients from Mr. Kong.

Identify all the potential health needs of this patient while acutely ill and hospitalized.







Identify the teaching and planning that should be initiated prior to discharge to prevent complications at home.

**3. Plan for a clinical experience.**

- ▲ Admit a patient into a room set up for infection control. Make notes on your feelings and the patient's feelings and behavior. Did you forget anything? How do you know? Answer the questions in B-1.
- ▲ Care for a patient in a room set up for infection control. How long has the patient been in isolation? How has this affected his or her morale?
- ▲ Care for a patient with jaundice. Observe carefully your patient's feelings and attitudes. Record your own feelings and actions after the laboratory session. How did you feel when your washcloth "turned yellow?" Why do you think this occurred? What do you think your patient felt? Thought?
- ▲ Write drug cards or use the ones from LEG VII-B in preparation for giving medications to patients with gastrointestinal and hepatic problems.

## OBJECTIVES

### *Surgical Problems and Nursing Care*

-   15. Write a nursing care plan for a patient prior to and following surgery for an obstruction of the bowel due to any of the following: tumors, intussusception, Hirschsprung's disease, pyloric stenosis, ileus.
-   16. Describe how normal function is altered by each of the following surgical procedures, and state the nursing interventions to relieve pain, maintain adequate nutrition, and prevent complications: antrectomy, gastrectomy, Bilroth I, Bilroth II, vagotomy, colostomy, ileostomy, cholecystectomy, hiatal herniorrhaphy.
-   17. Select, from a list, signs and symptoms that may indicate complications following GI surgery.

#### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** what surgery means to a patient. Quite a wide spectrum of thoughts and feelings! Up until now you have been concerned with general surgical procedures. Now you must apply your knowledge to care of the patient facing gastrointestinal surgery. Most of the principles are the same. At this level, however, you are expected to learn how to find out what is necessary to carry out nursing actions required and to follow through with help needed only in the event of emergency problems. Problems short of an emergency you may be able to solve yourself!

2. **Read** medical-surgical and pediatric references on *hiatus and inguinal hernias, complications from gastrointestinal surgery, abdominal distention, volvulus, Hirschsprung's disease, pyloric stenosis, ileus, gastrectomy, Bilroth, colostomy, and ileostomy.*

#### **Journals**

- Fleming, Sue, "Gastric Bypass for Morbid Obesity," *Nursing 81*, January, p. 54.
- Frank-Stromborg, Marilyn, and Stromborg, Paul, "Test Your Knowledge of Caring for the Patient with Peptic Ulcer," *Nursing 81*, May, p. 66.
- McConnell, Edwina, "Curtailling a Life-Threatening Crisis: G.I. Bleeding," *Nursing 81*, April, pp. 70-73.
- , "Toward Complication-Free Recoveries for Your Surgical Patients," *RN*, June 1980, Part I, p. 30; July 1980, Part II, p. 35.
- Ropka, Mary E., "Hiatal Hernia," *Nursing 82*, April, p. 126.
- Schumann, D., "How to Help Wound Healing in Your Abdominal Surgery Patient," *Nursing 80*, April, pp. 34-40.
- Zaharopoulos, Patras A., "The Operation's Over, but the Danger Is Not," *Nursing 82*, September, pp. 50-56.

3. List the common surgical procedures done in each section of the gastrointestinal tract, the changes in function, and the patients' adjustment problems that occur because of the surgery:

	<i>Surgical Procedure</i>	<i>Change in Function</i>	<i>Patient Problems</i>
Mouth			
Esophagus			
Upper duodenum			
Small bowel			
Large bowel			
Rectum, anus			

What does the term “acute abdomen” mean? What nursing assessments can you make to help in the evaluation?

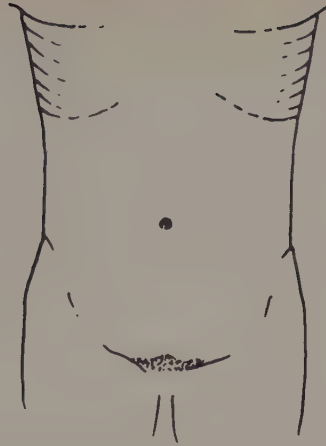
4. List the predisposing factors, discomforts (symptoms) and/or complications that may result from herniorrhaphy, and some nursing interventions for each:

	<i>Predisposing Factors</i>	<i>Symptoms/ Complications</i>	<i>Nursing Interventions</i>
Hiatus			
Incisional			
Femoral			
Inguinal			
Umbilical			

Would you select carbonated or noncarbonated drinks for a patient with hiatus herniorrhaphy? Why? On the figure on page 455 draw the incisional line you would expect to find for hiatus hernia repair. Why might a thoracotomy be done?

Describe the pre- and postoperative care and emphasis for a patient scheduled for each type of hernia repair. Include all age groups.





5. Draw a picture that describes the changes made in the GI tract with each of the following surgeries.

vagotomy	antrectomy	gastrectomy	hiatal herniorrhaphy
Bilroth I	Bilroth II	colostomy	ileostomy

What are some of the causes of bowel obstruction? Why do some gastrectomy patients develop pernicious anemia?

6. List the steps you could take to prepare your patient for abdominal surgery. (Note items on the preoperative check list, LEG VII-A.) These steps can be taken from the time of admission until the patient goes to the OR. An example would be: preparing a patient for sleep the night before surgery.

How can you best do this? How about a shower or tub bath if allowed? What about a good back rub to aid in relaxation. Fresh water and a fortified drink if allowed, until the NPO order is in effect. All of this gives you time to listen to and assess your patient's emotional state. What would you do if you were the night nurse and the patient couldn't sleep, or became anxious at 3:30 A.M.?

Add more; let yourself go with ideas to help your patient.

7. Look below at the doctor's orders and notes on Baby Indira. Review the usual preoperative and postoperative care of a baby with pyloric stenosis.

- (a) What special needs would the nurse have to know about to plan patient care?
- (b) Make a sample chart for this patient.
- (c) What observations are related to fluid and electrolyte balance?
- (d) Evaluate the care given and identify what information is missing that prevents evaluation.
- (e) Did you write some outcomes before you evaluated?

*Dr. Orders*

3/25 Admit

Dx: Intractable vomiting.

CBC, UA, S. electrolytes

Barium swallow in A.M. R/O pyloric stenosis.

VS q1h  $\times$  2, q2h  $\times$  2, then q.i.d. if stable.

Enfamil formula per usual routine.

Parents may visit anytime.

3/26 8:30 A.M.—NPO.

Empty stomach of barium c̄ ng tube.

Op consent for pyloromyotomy.

3:30 P.M.

Offer D/5/W orally q2h.

Begin Enfamil as tol.

3/27 Discharge

*Notes Made by Nurses While Caring for Baby Indira*

3/25 Baby Indira, 1 month, admitted at 3:45 P.M. with parents. Crying, skin loose and dry; amulet beads on arms. Parents speak East Indian, very little English.

BP—flush—67; TPR 99<sup>4</sup>-140-40 irreg; ht 22 in; wt 8 lb, 6½ oz.

4—Strapped for urine; sucking thumb; mother here; blood specimen drawn.

90 cc Enfamil. Projectile emesis 80 cc.  
 5—Dr. here. TPR 99<sup>2</sup>-132-32. Using pacifier.  
 6—TPR 99<sup>2</sup>-128-28; Sleeping in infant seat.  
 8—TPR 99<sup>2</sup>-140-40; 3 oz Enfamil ½ str, projectile vomiting, most of feeding.  
 10—TPR 99<sup>4</sup>-133-32. Awakened, 30 cc emesis.  
 11—Diapers wet × 2.  
 12—60 cc Enfamil ½ str. given slowly, retained.  
 NPO for x-ray. Mother left.  
 12-6—Sleeping. Diaper wet × 1.

3/26 7 A.M.—Mother here. Rocking baby.  
 8—To x-ray.  
 9—#5 Fr feeding tube inserted. Stomach contents aspirated with 10 cc syringe; Dr. here; surg consent signed—pyloromyotomy.  
 1—To OR in crib.  
 3:45—From OR; TPR 98-144-44; dressing dry; sleeping, arouses easily.  
 4—Cries occasionally. Comforted by mother.  
 6—TPR 98<sup>2</sup>-144-42; D/5/W 60 cc retained.  
 8—TPR 98<sup>8</sup>-140-40; D/5/W 90 cc s problems.  
 11—Diaper wet × 2; Sleeping in mother's arms most of P.M.  
 3/27 12—TPR 98<sup>8</sup>-140-40; Enfamil ½ str. 90 cc.  
 6 A.M.—Slept all night. Dressing dry. Diaper wet × 2.  
 8—Mother here; Dr. here; dressing removed; steri-straps intact; wound clean.  
 90 cc Enfamil taken, retained.  
 9—Home with parents.

## B. PUTTING IT INTO ACTION!

1. Match the following three columns: Be prepared to state your rationale.

<i>Patient Complaint or Discomfort</i>	<i>Medical Measures You Might Anticipate Being Ordered</i>	<i>Nursing Interventions You Might Use</i>
_____ 1. Urinary retention	(a) Rectal tube	(A) Running water in bathroom
_____ 2. Constipation	(b) Stand to void	(B) Walk the patient in hall
_____ 3. Pain	(c) Catheterize prn	(C) Back rub, change position
_____ 4. Hiccups	(d) CO <sub>2</sub> by mask prn	(D) Provide room deodorant
_____ 5. Distention	(e) Ambulate bid	(E) Provide privacy
_____ 6. Thrombophlebitis	(f) Take BP and P	(F) Support neck
_____ 7. Wound infection	(g) Demerol 75–100 mg I.M. prn q4h	
_____ 8. Vomiting	(h) Ancef 1 Gm q 6 h	
_____ 9. Parotitis	(i) Dulcolax Supp. h.s.	
_____ 10. Pneumonia		

- |   |  |
|---|--|
| (j) Sips of clear liquid<br>for 4 hrs, then light<br>diet | and head with<br>pillows   |
| (k) Frequent special<br>mouth care                        | (G) Give special<br>mouth care   |
| (l) Compazine, 10 mg<br>I.M. q 3-4 h                      | (H) Plan alternate<br>periods of nurs-<br>ing care with op-<br>portunities for<br>rest |
| (m) Back rub, change<br>position                          |  |
| (n) Turn, cough, and<br>deep breathe                      |  |

2. Match the following two columns:

<i>Symptoms</i>	<i>Possible Complications</i>
_____ 1. Pallor, drop in BP, rapid P	(a) Wound infection
_____ 2. Cold, moist, clammy skin	(b) Thrombophlebitis
_____ 3. Restlessness and thirst	(c) Dehiscence and/or evisceration
_____ 4. Sudden pinkish drainage on dressing	(d) Bleeding
_____ 5. Fever, cough, dyspnea	(e) Shock
_____ 6. Redness, heat, swelling, pain in lower extremity	(f) Aspiration pneumonia
_____ 7. Increased pain in incision	(g) Paralytic ileus
_____ 8. Distention and regurgitation of liquids	
_____ 9. Fever, malaise, purulent cough	

3. React to the following (in a small group or individually). Consider that you are the nurse.

Mr. Hamilton Bord, 56, weight 250 lb, postoperative appendectomy patient of Friday, complained of severe abdominal pain on Sunday morning—"so bad I can't tell you what it's like." Vomiting occurred, but without blood. What additional observations would you make before notifying the physician on call? (His surgeon is out of town.)

Telephone orders are received from the physician on call:

"Give him:

Demerol 100 mg I.M. q4h for pain and nausea

Phenergan 50 mg

Place him on NPO and watch him."

You are on duty. What do you think and what do you do as a concerned student? As a concerned graduate?

Monday morning: you're back; his surgeon is back. What do you think he feels? Says? Does? After emergency surgery for a perforated bowel and peritonitis Mr. Bord is in shock. He has signs of acute systemic infection and bloody diarrhea.

Three weeks later: Mr. Bord weighs 170 pounds and is too weak to turn himself. As you are turning him to change the sheets (would you believe bloody diarrhea q 20 min?), he shouts, "Don't turn me one more time!" That did it. Three weeks of constant hard work and all you get is abuse. You turn away in tears. . . .

Mr. Bord dies the next evening.

Why did all of this occur? (It is not a make-believe story!)

- What is the nurse's responsibility in calling the physician? List all of the symptoms and nursing actions that you can think of to relate in order to give the physician a picture that compels his or her physical presence to examine the patient:
- Why did Mr. Bord shout at his nurse? Why did his nurse cry? What would you have done?
- How does a nurse's failure to react honestly and realistically in such a situation contribute to her final reaction? How much frustration does it take before going over the brink?

4. **State** what kinds of discomfort occur from distention due to the following causes: intestinal obstruction

urinary retention

ascites

5. **Attend** a group discussion on "Care of Patients Having Surgery." Review the care of Baby Indira (A-7) and Mr. Bord (B-3).

Compare the preoperative and postoperative care of patients in the Kardexes (pp. 418 to 424: Helen Horness, Gerald Stone, Janet Jetson, Robert Rupsure).

6 **Plan** for a clinical experience.



- ▲ Observe patients who have had G.I. surgery. Note signs and symptoms of complications.
- ▲ Look at patient charts. Note those patients who have had complications, treatment, and are out of danger. Talk with them. What symptoms were noted in the chart? What nursing action was taken? How did the patient feel during the emergency? Was he or she aware of it?
- ▲ Care for patients who have had G.I. surgery and chart assessments that reveal the presence or absence of complications. Discuss your nursing care plan in pre- and postconference.
- ▲ Look for patients with distention. Check the medication orders. If you see that Prostigmin is ordered, you may need to refer to LEG VII-A for review of its use. What other signs and symptoms occur with distention (for example, restlessness, euphoria)? How would you know that distention is increasing?
- ▲ Care for pediatric surgical patients. How does a pediatric postoperative “course” differ from that of an adult patient? How did you adapt your nursing care to include the patient’s family?
- ▲ Review the **Clinical Expectations for Level Eight** on the Why page.

# OBJECTIVES

## Wound Care



18. *Demonstrate assisting the physician with a dressing change after abdominal surgery, with minimal direction.*



19. *Demonstrate irrigating a wound using sterile technique, and change a dressing around a T-tube and/or a Penrose drain with minimal direction, and record your observations.*

### A. WHAT'S IT ALL ABOUT? \_\_\_\_\_

1. **Think about** how you would change a dressing. When you prepare to change a dressing, whether assisting a physician or doing it yourself, do you know exactly how you are going to proceed? What if you have 90 seconds before the physician comes into the room? What exactly can and should you have accomplished? Can you make adjustments to accommodate your patient or some untoward happening? Review LEG VII-A, Objective 25, as necessary.

2. **View** audiovisuals.

"Care of the Patient with Gastroduodenal Ulcer Surgery" (TR), 1984.

See page 214 for other audiovisuals related to wound care.

3. **Read** as much as you can find on *dressings, binders (scultetus), tubes, and evaluation of patient's conditions* in medical-surgical and pediatric references. Look in procedure manuals for types of dressings.

#### Journals

Bauman, Barbara, "Update your Technique for Changing Dressings: Dry to Dry," *Nursing* 82, January, p. 64 (very good!).

——, "Update Your Technique for Changing Dressings: Wet to Dry," *Nursing* 82, February, p. 68 (pictorial).

Brubacher, Linda, "To Heal a Draining Wound," *RN*, March 1982, p. 30.

Chang, L. F., "A Big Pay-Off for Painstaking Care: Getting the Best of Those Difficult Abdominal Wounds, Part II," *RN*, August 1981, pp. 59–63 (how to apply dressing, pack a wound).

Strange, Julie M., "An Expert's Guide to Tubes and Drains," *RN*, April 1983, p. 35.

### B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. **Draw** on the figures on page 462 the types of sterile dressings you think would be most appropriate. Shade in the area that requires the thickest dressing. Indicate the various types of dressing beginning with the first and proceeding to the top covering.



Consider that your patient has been on the right side and you plan to turn him or her to the left side. How does this influence your final dressing? Shade this change in red on one of the above figures.

- Here's another problem: you plan to get your patient out of bed to ambulate in the hall after you change the dressing. How does this influence your final dressing? Shade this change in green.
- Draw the position of the scultetus binder over the dressing on one of the figures above just before you "get the patient up to ambulate." Are you sure your dressing and binder will look as smooth after ambulation? You'll find it easy to tell if your dressing is too loose. But how will you know if it is too tight?
- What are the advantages of Montgomery straps with dressings over a draining wound? How can you make them?
- How do you know when to change a dressing or to reinforce it?
- What are the advantages of using a colostomy appliance over draining wounds?

Place in order the list of nursing actions to change the dressing suggested for the following patient situation:

Mrs. Rock has had a cholecystectomy. In report you learn that Dr. Brown has changed her dressing one time and there is an order to "change dressing prn." You have never seen Mrs. Rock before.

1. Cleanse the wound and remove old tape.
2. Add new Montgomery straps where needed to prevent skin irritation.
3. Check the chart to find out the exact surgical procedure and number of drains.
4. Set up a sterile field.
5. Examine the dressing to note need for change.
6. Explain to Mrs. Rock what you will do and when.

7. Record amount and characteristic of drainage.
8. Apply a sterile dressing positioned for maximum absorption.
9. Remove wet dressings and discard them.
10. Wash your hands.
11. Check on the level of Mrs. Rock's comfort.
12. Assemble all the needed equipment (e.g., instruments, dressing cart).

(L) (OI) (II) (Z) (8) (Z) (I) (6) (4) (OI) (ZI) (9) (II) (S) (OI) (E)

How would you feel if you went into the room to check a patient's dressing, and when you came out the team leader said: "How is the I.V. running? How much is left?"  
You gulp and say: "Well, I didn't look at it. I just went in to check the dressing."

What can you do to avoid this situation in the future?

2. **Practice** applying a dressing to a student "patient" and then a binder and see how well it stays on. Check for tightness and comfort. Reverse roles and you be the "patient" and react to how it feels and how a patient must feel.

How would the procedure change if the patient had a wound infection and were on infection-control precautions? Practice changing a dressing as if these precautions were in effect.

What observations would make you suspect an infection was present in a wound?  
What independent nursing actions would you take to investigate further?

### COMMENTS ON DRESSINGS

*Dressings must be applied according to strict principles of surgical asepsis. Don't fall into the pattern of simply reapplying a new dressing that is exactly like the one you remove. Evaluate the old dressing (e.g., how many layers are dry? Which part is soaked? Where is the drainage seeping through?) and then apply a dressing that is tailored to fit your patient's specific wound.*

*Many wounds drain excessively and require frequent changes. Take this opportunity to note the drainage; then try different approaches. (E.g., cut a slit in a gauze square to fit around a drain; if this is a sterile dressing change, where will you get scissors? Place extra dressings in different places to allow more absorption.) Why should there always be a safety pin in a Penrose drain? Note the body contours; pad the natural crevices well so that the fluid will not drain out under the dressing. As all patients are different (and all nurses), so will all dressings be different and adapted to the individual patient and wound. Don't let dressing changes become routine!*

3. **List** the steps you would take in assessing the following patient on whom you have just received report.

Mrs. Sand, one day postoperative, has a Foley catheter, a nasogastric tube to intermittent suction, and a dressing in place following a cholecystectomy and an exploratory



laparotomy. You are assigned to give her care this morning. She has orders for NPO and to reinforce dressing, prn; she may have Demerol 50–75 mg q 3–4 h prn for pain.

- 1.
- 2.
- 3.

What questions will you need to ask Mrs. Sand? What will you check on the chart? What signs and symptoms will you look for?

Be prepared to state your rationale for all of the steps listed and for the answers to the preceding questions. Use this list for a checklist when you are actually caring for a patient after a cholecystectomy or other major surgery. What will be your evaluation criteria?

Mrs. Sand's Operative Sheet states "T-tube and Penrose drain from stab wound." When you complete her transfer back to her room from the recovery room, what will you check in relation to surgery? List what you will look for. Now, go back and sequence what you will look for beginning with the most important observations.

- How often will you check the T-tube drainage on the day of surgery? First day after surgery? Third day? Fifth day? What changes in amount of bile drainage would you expect to see on the day of surgery compared to the third day after surgery? Ten days after surgery? Why? Where should most of the bile be draining by the tenth day?
- What symptoms would alert you to an obstruction? What changes would you expect to note in color of stools as the drainage in the T-tube receptacle decreases and the amount of intestinal flow increases? Why?
- How can you adapt the bile drainage system to allow your patient to ambulate? What do you look for in the system after ambulation? Why?
- What if you noted blood-stained fluid in the bile drainage bag the day of surgery? The third day postoperative?

#### 4. Plan for a clinical experience.

- ▲ Assist or observe a physician changing a dressing for the first time following surgery. Write down your feelings and the steps you noted as especially important. How did it go? Were you scared? If you answer yes, that's normal. Remember you must have enough anxiety to keep you sharp; practice and know-how will rid you of fear—and so, on to a good success experience.
- ▲ Change a sterile dressing with another student as an observer. Discuss *his or her* evaluation of *your* nursing action. Change as many dressings as necessary to meet the Objective.
- ▲ Evaluate several patients' conditions. Have a student check you with your checklist (B-3). Establish a routine so that you never forget an item. This is not an easy task,




so do not get discouraged, nor let it be an excuse! Keep at it until you are confident that you miss nothing!


- ▲ Find out what equipment would be needed to irrigate and pack a wound. Examine some iodoform and nu-gauze.
- ▲ Find out about or observe a wound culture being taken. What equipment is used, where is it sent? What equipment is needed if the physician wants to aspirate an abscess and culture it?
- ▲ Assist with or irrigate a wound using sterile technique.



# OBJECTIVES

## *Ostomy Care*

 20. *State three worries or concerns a patient facing surgery for a colostomy will have and how you will help him or her with these concerns.*

  21. *Demonstrate changing the dressing or bag appliance and irrigating a colostomy.*

  22. *Demonstrate caring for a patient with a colostomy.*

### A. WHAT's IT ALL ABOUT? \_\_\_\_\_

1. **Think about** bowel training, bowel habits, and the change a colostomy makes in a patient's life. How do you feel about irrigating a colostomy? How do you think a patient feels about the odors that come from the dressing that needs changing? How can you help your patient adjust and accept this situation? Although by now you probably have your own thoughts and feelings well in hand, you may need some reinforcing and modifications of your own attitudes as you help colostomy patients.

2. **Talk** with persons from the Ostomy Club in your area. Find out what nursing measures were most helpful. Remember, if your care involves a patient who has an "old" colostomy, you need to allow that patient to care for him- or herself in the accustomed way, help the patient adapt the hospital equipment, and use the patient's own routines as nearly as possible.

3. **View** audiovisuals.

"Colostomy" (Cancer III) (CM).

"Learning About Your Colostomy" (TR).

"Colostomy Irrigation" (TR).

"Colostomy Care at Home" (TR).

"Learning About Your Ileostomy" (TR).

"Ileostomy Care at Home" (TR).

"Bowel Elimination" (filmstrip, LP)

    "Colostomy Irrigation—Introduction"

    "Colostomy Irrigation—Equipment and Practice"

4. **Read** about *colostomy* and *ileostomy*.

#### **Books**

Blondis and Jackson, 1982, "Colostomy and Ileostomy Patients," p. 60.

Smith and Duell, 1982, "Irrigating a Colostomy," p. 442; "Applying a Fecal Ostomy Pouch," p. 447; "Intubating a Continent Ileostomy," p. 451.

### Journals

Nortridge, J., "Helpful Hints for Assessing the Ostomate," *Nursing* 82, April, p. 72.  
Simmons, Kathleen, "Sexuality and the Female Ostomate," *AJN*, March 1983, p. 409.  
Wilpizeski, Marcia D., "Helping the Ostomate Return to a Normal Life," *Nursing* 81, March, p. 62.  
———"Checking Your Stoma," *RN*, August 1983 (patient information sheet).

5. Attend an Ostomy Club session with speaker.

## B. PUTTING IT INTO ACTION! \_\_\_\_\_

1. Attend a small group discussion on "Concerns of a Patient Scheduled for a Colostomy." Discuss how both patients and family members can be helped to accept this change in body image. How does the fear of cancer relate to the actual surgery? Share your NCP's from clinical lab.

2. List the differences in an enema and a colostomy irrigation.

*Enema*

*Colostomy Irrigation*

3. Think back to an experience in your own life when you were "expected" to perform some task, such as scheduling yourself for and participating in small group discussions in Volume I, and you just never seemed to do it successfully. Relate this experience to a patient who does not succeed in learning how to irrigate his or her colostomy after three days of instruction. Relate this to the mother who doesn't succeed in feeding her baby comfortably before she and her baby are discharged. How do ambivalent feelings apply to each of these three situations? List two ambivalent feelings for each person.

You:

Colostomy patient:

New mother:

How does the grief process apply? What loss has occurred to each person? What stage of the grief process is each in?

What helpful intervention can you supply each person?

How will a patient show acceptance of the colostomy?

**4. Plan for a clinical experience.**

- ▲ Care for patients with colostomies, either “old” or “new.” What can you learn from a patient with an “old” colostomy that you can use to help a patient with a “new” one?
- ▲ Examine types and styles of colostomy bags in your central supply department. How is the decision made about what type the patient will use? What happens if meticulous skin care is not maintained?
- ▲ Talk with patients facing colostomy surgery.
- ▲ Talk to the enterostomal therapist about care of colostomies. What different methods of skin preparation are used? Make patient rounds and notice the approach to patients and teaching methods. What adaptations are required to meet basic needs?





# LEG VIII-C

## Gastrointestinal Problems

### HAVE I LEARNED?

The following questions are for **you** to answer in order to find out if you have met the Objectives. All of the Objectives in LEG VIII-C are covered in this series of questions. Pick a quiet time and answer them. Answers are found at the end of Volume II.

No space has been left for answering the questions related to the “doing” Objectives. Use a separate sheet of paper for these answers and then use the answers in clinical or campus lab for your own evaluation.

#### *Objectives*

#### *Questions*

- |      |  |
|------|--|
| 1, 2 | 1. Attend a GES. Be prepared to demonstrate the admission of a patient and/or make a physical assessment of a patient with altered GI function. Be able to give the rationale for any of your actions when requested.  |
| 3    | 2. List the actions you would take if your patient had the following order:<br>“GB & Upper GI Series in A.M.”  |
| 4    | 3. What information would you give a patient who has the following order?<br><br>“Stool specimen to lab for occult blood.”<br><br>What different measures would you take if you had the following orders for two different patients?<br><br>“Stool specimen to lab for parasites.”<br>“Routine stool specimen to lab.” |
| 5    | 4. Match the following GI disorders in column 1 with the changes that would be beneficial to the patient in column 2.  |

#### *Column 1*

#### *Column 2*

- |                         |                                   |
|-------------------------|-----------------------------------|
| (a) constipation        | 1. high calorie diet              |
| (b) diarrhea            | 2. high protein diet              |
| (c) diverticulitis      | 3. gluten free diet               |
| (d) colitis             | 4. prevent constipation, diarrhea |
| (e) gallbladder disease | 5. high fiber diet                |
| (f) ulcer               | 6. low fiber diet                 |
| (g) lactase deficiency  | 7. increase fluids                |
| (h) hiatal hernia       | 8. rest GI tract                  |
| (i) dumping syndrome    | 9. delay gastric emptying         |

- (j) colostomy
- (k) celiac disease
- (l) hepatitis
- 10. bland diet
- 11. small feedings
- 12. eliminate caffeine, alcohol
- 13. low-residue diet
- 14. low fat diet
- 15. limit lactose intake

- 6

5. Write a nursing care plan for a real or hypothetical patient with a nutritional problem.
- 7

6. (a) Describe hyperalimentation.  
 (b) What nutrients are provided in hyperalimentation?  
 (c) Name three nursing implications for patients receiving hyperalimentation.
- 8

7. Fill in two drugs for each classification in the following chart:

<i>Classification</i>	<i>Generic or Trade Name</i>	<i>Route</i>	<i>Action/ Use</i>	<i>Untoward Effect</i>	<i>Nursing Implications</i>
<i>Analgesic</i>					
<i>Anticholinergic</i>					
<i>Antipruritic</i>					
<i>Anti-inflammatory</i>					
<i>Digestant</i>					
<i>Antidiarrheic</i>					

- 9

8. Describe how each of the following drugs acts to relieve pain:

Amphojel

morphine

atropine

Gelusil

Tagamet

belladonna

- 10            9. Mrs. James is a 35-year-old woman who has just been diagnosed as having ulcerative colitis. Write a teaching and discharge plan for her.
- 11            10. Care for a patient with celiac disease, dumping syndrome, or lactase deficiency. Identify a nutritional need that is unmet, and then develop a teaching plan.
- 12            11. The nursing care of the patient with an ulcer includes which of the following:  
              (a) Noting frequency of pain to determine if gastric acidity is controlled.  
              (b) Allowing ventilation of feelings to reduce emotional stress.  
              (c) Reducing the number of visits to the patient's bedside to reduce environmental distress.  
              (d) Observing for side effects of anticholinergic drugs.  
              (e) Observing for the signs and symptoms of the usual complications of infection and obstruction.
- 13            12. Compare the causative factor and nursing implications for hepatitis A and hepatitis B.
- 14            13. From the list of nursing actions below, select those that are appropriate for a patient with hepatitis B (write B) and those that are appropriate for a patient with hepatitis A (write A).  
              \_\_\_\_\_ (a) Use disposable syringes and needles  
              \_\_\_\_\_ (b) No break in skin of hands  
              \_\_\_\_\_ (c) Stool isolation precautions  
              \_\_\_\_\_ (d) Place in room isolation  
              \_\_\_\_\_ (e) Provide rest  
              \_\_\_\_\_ (f) Encourage nourishing diet  
              \_\_\_\_\_ (g) Linen handled separately  
              \_\_\_\_\_ (h) Isolation precautions for food service
- 15            14. Care for a patient with a bowel obstruction. Write a NCP for the day before surgery and revise it for the first postoperative day.
- 16            15. Match the surgical procedure in Column 1 with the descriptions in Column 2.

*Column 1*

- (a) Bilroth I \_\_\_\_\_
- (b) Bilroth II \_\_\_\_\_
- (c) antrectomy \_\_\_\_\_
- (d) colostomy \_\_\_\_\_
- (e) vagotomy \_\_\_\_\_
- (f) hiatal herniorrhaphy \_\_\_\_\_

*Column 2*

- 1. Removal of the portion of the stomach where gastric secretion is greatest.
- 2. A portion of the colon is brought through the abdominal wall to create a temporary or permanent opening.
- 3. A division of the nerves known to stimulate secretion.
- 4. Anastomosis of the remaining stomach to the duodenum.
- 5. Stomach is replaced in the abdomen and the esophageal opening is made smaller.
- 6. Anastomosis of the remaining stomach to the jejunum.

16

16. Choose a suitable nursing intervention from Column 2 to be used in giving postoperative care for the surgical procedure in Column 1.

*Column 1*

- (a) gastrectomy \_\_\_\_\_
- (b) vagotomy \_\_\_\_\_
- (c) ileostomy \_\_\_\_\_

*Column 2*

- 1. Assess for fistulas, peritonitis
- 2. Observe for diarrhea
- 3. Prevent B<sub>12</sub> deficiency
- 4. Prevent fluid and electrolyte imbalance
- 5. Assess for symptoms of dumping syndrome
- 6. Assess for decreased pain

17

17. Should any of the complications of GI surgery in Column 1 occur, indicate the signs and symptoms in Column 2 that the nurse would see.

*Column 1*

- (a) bleeding \_\_\_\_\_
- (b) distention \_\_\_\_\_
- (c) obstruction \_\_\_\_\_

*Column 2*

- 1. Shallow, rapid respirations
- 2. Large amounts of bright red blood in suction drainage
- 3. Hematemesis
- 4. Nausea
- 5. Feeling of fullness



6. Tarry stools
7. NG tube not draining
8. Cramps in lower abdomen
9. Boardlike abdomen

- 18            18. List the actions you would take if the following occurred:  
                 Dr. Brown met you as you came from your patient's room: "I'll be back to  
                 change Mrs. Rock's dressing in 5 minutes. Please have her ready."
- 19            19. List the steps you would take to do a sterile wound irrigation. Use this  
                 list for your observer's checklist as you demonstrate irrigating a wound  
                 using sterile technique, changing the dressing, and charting your pro-  
                 cedure and observations.
- 20            20. List three worries or concerns a patient will have who is facing surgery  
                 for a colostomy, and state how you will help him or her with these  
                 concerns.
- 21, 22       21. List the steps you would take in caring for a patient with a colostomy  
                 after the stoma is open. Include checking the dressing and preparation  
                 and irrigation of the colostomy.



# ANSWERS TO HAVE I LEARNED?

## LEG VI-A

1. (c) The student focuses on the patient's story and encourages a better understanding of her problem by exploring it together, moving toward possible solutions. The decision-making is centered on the patient.
2. All but (d).
3. All of these could be correct. A crisis occurs when a person is unable to deal effectively with an emerging problem. Crises vary in severity. The equilibrium is unbalanced by the problem, and the familiar problem-solving mechanisms do not work. All crises involve a loss or threat of loss, and the process of adapting to the loss follows a distinctive pattern.  
  
(e), (f), (g), (h), (j), (k), (l), (m), (n) are situational. (a), (b), (c), (d), (i) are maturational.
4. (a) and (e) are best, (c) is correct but does not answer the question "why."  
(b) and (d) are incorrect statements.
5. (a) A healthy response would show him going through the stages of the grief process. He might talk about the decision not being "definite" or about only staying in the nursing home "a short time." When he moves to the second stage, he may become uncooperative, dependent, angry toward his daughter or the staff." This will be followed by the final stage of expressing wishes that he will like the home, how he will miss the staff, making plans for belongings. The long-range consequence is one of acceptance and normal mental health.  
(b) An unhealthy response might show immediate approval of the idea and eagerness to tell everybody about what a fine home it is at the same time that he avoids talking about his true feelings, or he might become quite passive about the whole idea and avoid talking about the subject at all. If the staff allows this silence to continue without an attempt to help the patient resolve his feelings, he will probably suffer an acute depression when moved to the nursing home.
6. (a) Objective observations:
  1. Not looking at her incision.

2. Not talking about her surgery.
  3. Maintaining self-control and not expressing appropriate feelings of sadness or loss.
  4. Not weeping.
- (b) You would also need information about:
1. Previous losses she has experienced and how she coped.
  2. The available support persons in her life.
  3. Her current level of understanding and feeling about her situation.
  4. Her current ability to complete the activities of daily living.
- (c) 1. Avoidance of looking at the surgery and talking about the subject makes one think this patient is stopped in the first stage of the grief process, which is characterized by denial.
- (d) 3. The patient needs an opportunity to explore and experience her feelings in a nonjudgmental setting with an empathetic nurse, needs to be able to rally her own resources and to set goals for herself.
- (e) Other goals might include:

To improve communication between patient, family, and staff.

To support and strengthen normal coping behaviors or normal problem-solving skills.

- (f) 2. This acknowledges the difficulty in facing the truth but confronts the patient with the fact. The patient has the choice to either change the subject or continue the conversation with the nurse, who obviously cares enough to want to listen. The nurse knows that, if the patient does not progress beyond the stage of denial while in the hospital, she will receive little professional help at home and is a good candidate for a later depression.
- (g) Other interventions may include:
1. Provide an unhurried atmosphere for talking and listening for clues.
  2. Encourage crying, expression of feelings, and offer feedback.
  3. Keep interaction goal oriented: talk about the present and avoid superficial subjects.
  4. Explore available resources.
  5. Encourage sharing common problems with others, such as members of a Mastectomy Club.
  6. Avoid criticism.
  7. Approve of normal use of defense mechanisms.
- (h) 4.
- (i) Other criteria for evaluation might include observing for:
1. Verbally acknowledging a need for assistance in adjusting to her loss.
  2. Expressing feelings both verbally and nonverbally.
  3. Accepting suggested referrals.
  4. Making decisions and realistic plans for the immediate future.

7. All but (e).

8. *Grief* is caused by a loss or a threat of loss of anything that is highly valued, such as self-esteem, a loved one, or body image. Duration of grief may be short or may take

up to a year to resolve, but restitution begins in a few weeks. *Depression* is also caused by a loss. Patient may be unaware of the meaning of the loss to him- or herself. Depression continues on beyond the period of normal grief.

9. (a), (d), (e), (f), (g), (h), (i), (j), (k) are correct.
10. Goals and nursing interventions might include:
  - (a) *Establish a therapeutic relationship* by sitting and talking with him so he can externalize his anger and talk about what happened before he became depressed.
  - (b) *Increase his self-esteem* by recognizing his strengths and accomplishments, but avoid praise as that may overwhelm him and he will have to prove his worthlessness.
  - (c) *Prevent further vegetation* by providing a schedule that includes ambulation to meals and bathroom at regular intervals.
  - (d) *Increase social interaction and stimulation* by making sure Mr. Graves is included in group activities and programs.
  - (e) *Prevent alienation from his family* by explaining to them what is happening to Mr. Graves and why, and encouraging them to share their own feelings of loss with both you and their father. You may have more.
11. (a), (b), and (d) are correct. The nurse is trying to help the patient recognize that his feelings of worthlessness and demanding behavior are indicators that he is bothered by something else and that it is important for him to move around even though he doesn't feel like it. You care for him by helping him out of bed and talking with him.
12. (a) When his supper was served, he said, "Why should I eat? The future is hopeless."  
 (b) Weighed 174 lb, refused entire meal except for glass of milk.

13.	<i>Drugs</i>	<i>Action/Use</i>	<i>Side Effects</i>	<i>Nursing Implications</i>
MAO inhibitors	Nardil Parnate	Antidepressant used for depression	Blurred vision, anxiety, hypotension, urinary retention	Observe for ↑ BP, urine retention; omit cheese and wine from diet
Tricyclics	Elavil Tofranil	Antidepressant used for depression	Drowsiness, dizziness, dry mouth, constipation	Assess for urine retention; assess closely if suicidal



14. Possible answers may be: afraid he will cry, and they are uncomfortable seeing a man cry: Afraid he will say something they won't know how to answer and make them feel ill at ease. Irritated at his behavior of demanding medication and wetting the bed. Threatened by the thought that this could also happen to them. Easier to attend to the physical needs than the emotional.

15. (b), (c), (d), are correct. The nurse is accepting his behavior and feelings, encouraging him to have feelings and show them, and confronting him with the fact of the surgery (a) is incorrect and avoids the subject.

(e) and (f) are incorrect and are false attempts at cheer and instead may cause the patient, faced with the prospect of being out of bed where everyone can see his is missing a foot, to further withdraw.

16. There are numerous behaviors. One example is the *asking of questions about what the next weeks or months will bring in terms of symptoms or problems*. The nursing response to this question can have two purposes: to *find out what preconceived ideas the person has* that might need correcting and *to give information*. The nurse could say, "Tell me what you imagine some of the problems will be or that your doctor has told you will occur and then I will tell you what I can." After determining what the patient knows, she can give information, such as: "We can keep you from suffering by giving you medications to relieve pain," or, "You are wondering if you can cope with the future weeks as the disease worsens. It seems overwhelming to look ahead to it." This last response helps the person to ask an answerable question, to separate his concerns about himself and the other person and to handle each in a problem-solving method. Remember, people have the ability to handle their own problems if given support and guidance along the way. This is what this nurse is giving.

Additional coping behaviors:

Expresses feelings openly.

Plans realistically for the future.

Expresses feelings, such as sorrow, depression, and anger and realizes reason for these emotional reactions.

17., 18. Share your answers in a GES with your instructor and discuss your answers and rationales.

19. (b), (d), and (f) are true.

20.

	<i>Example</i>	<i>Behavior</i>
(a)	Anxiety disorder	Feeling forced to carry out some act partly against conscious wishes
	Obsessive-compulsive disorder	
(b)	Dissociative disorder	Total loss of memory for events that occurred during a specific period of time
	Psychogenic amnesia	

Ideas, feelings, memories, are repressed into unconsciousness, but can return spontaneously

- (c) Somatoform disorder  
Hypochondriasis

A severe preoccupation with the state of one's own body; many physical complaints with no organic findings; lack of interest in environment

- (d) Factitious disorder

Produces blood in urine by taking anticoagulants

- (e) Psychosexual  
voyeurism

Obtains all sexual satisfaction by looking at other people's bodies without their knowledge or consent

21. (a) Recognize that the paralysis is not consciously motivated by the patient, and the need for treatment and cure is real. The paralysis is a symptom of a problem that needs attention. Share feelings and opinions about patients with functional problems.
- (b) Give physical care, encouraging the patient to be only as involved as she desires.
- (c) Make observations of patient's conversation and behavior and record these in the nurse's notes. Avoid reinforcement of symptoms.
- (d) Talk with other members of the health team about your feelings toward the patient and how they affect the patient.

22. (a).

23. *Side effects:*

Initial diminishing of motor coordination, alertness.

Drowsiness.

*Action / use:* Antianxiety agents used for anxiety and tension.

*Nursing implications:* Monitor BP; assess for ataxia, slurred speech, vertigo.



## LEG VI-B

1. *Physiologic*: changes in respiratory, circulatory, nervous systems occur automatically (autonomically) to compensate for the problem; slow down body needs until correction can be affected; produce faintness and thus avoidance of danger; reduced movement for healing.

*Psychologic*: previous experiences, childhood training, personality, cultural values, all affect the psychological or emotional reactions to stress. Some reactions may be very exaggerated (e.g., stoic or highly emotional response).

2. *Child's* alarm reaction: recognizing the hurt and injury and going for help and comfort is the resistance phase. As she responds to comforting and first aid, she can again go out to play while her physiological forces take over. She will not reach the exhaustion phase.

*Father* knows how disappointed, perhaps angry, he feels inside as his alarm reaction. His wife notices it as irritability and fatigue; whether his own inner forces are strong enough to combat these destructive feelings, combined with his wife's ability to take supportive action in response to his irritability, and so on, will decide whether the resistance phase will be adequate or whether this man will need to have more intensive intervention because of the stage of exhaustion (e.g., gastrointestinal symptoms or mental illness).

*Mother* probably recognizes that some small alarms probably did go off during the day and that was the time of resistance; the response to the criticism indicates the stage of exhaustion.

3. Nursing assessment was missing. There was no description of the condition of the skin.

4. Insulin answers are (c),(d),(e),(g),(h).

Glucagon answers are (a),(b),(f),(i).

5. Answers (a),(f),(g),(i) are false. All the rest are true.

6. 1 (d), 2 (a), 3 (c), 4 (f), 5 (e), 6 (b).

7. (a) *Diet*: Anorexia, infrequent eating, or not eating all of the food prescribed can cause an insulin reaction for patients who are taking insulin or oral hypoglycemic agents. Overeating can cause the reverse problem and create symptoms of hyperglycemia.  
(b) *Exercise*: More exercise than usual (tennis for a non-tennis player) burns up carbohydrate, and thus leaves an excess of insulin in the insulin-dependent diabetic unless extra food is given. Less exercise than usual does the reverse.

- (c) *Illness*: Causes more stress on the body, burning more glucose and requiring more insulin. The likelihood of ketoacidosis is great in insulin-dependent diabetics.
  - (d) *Weight*: Obesity increases the demand for insulin and can cause symptoms to occur in the non-insulin-dependent diabetic. These symptoms will disappear when the weight returns to normal.
  - (e) *Stress*: Stress increases the demand for insulin in the same fashion as illness and weight. It can cause symptoms to appear in the non-insulin-dependent diabetic also and create problems of hyperglycemia.
8. Compare your diet with another student's. Add up the calories and see if they equal 1500 and are distributed so that 50% are from carbohydrates, 20% from protein, and 30% from fat.
  9. 1635 calories.
  10. Evaluate your success with at least one other student.
  11. Evaluate your success with at least one other student.
  12. Evaluate your success with at least one other student.
  13. Evaluate your success with at least one other student.
  14. *FBS*: tell patient no food after midnight the morning of test; short hold on breakfast until blood drawn. Be sure that patient receives breakfast right after sample of blood is taken. Do not restrict fluids. Nurse must request lab test and be sure that diet is given.  
*GTT*: no food after midnight before test; tell patient; blood sample drawn (nurse must have sent request to lab); urine sample taken (tell patient). Administer a drink of glucose proportionate to body weight. Samples of blood and urine taken at intervals of ½ hour, 1 hour, and 2 hours after ingestion of glucose mixture. Nurse must be sure lab samples are taken. Time schedule must be written down and checked off.  
*Postprandial*: to test blood sugar after meals usually 1–2 hours.  
*Cortisone-glucose tolerance test*: more sensitive; may be used to detect prediabetic state in relatives of diabetics or pregnant women; same procedure—except cortisone is administered at start of test. Compare the normal ranges with those in your local hospital. Range may differ depending on method used to measure glucose.



15.

	<i>Action</i>	<i>Use</i>	<i>Untoward Effect</i>
Insulin	catalyst in metabolism	coma, severe to moderate diabetes	hypoglycemia, nervousness, local skin reactions
Oral hypoglycemic	increase secretion of insulin	mild, uncomplicated diabetes	GI upset, weakness
Glucagon	opposes action of insulin—increases glucose concentration in blood	hyperglycemia	nausea and vomiting, hypotension

16.

		<i>Onset</i>	<i>Peak Effect</i>	<i>Duration</i>
Short	Regular	½–1 hr	2–4 hr	6–8 hr
Long acting	PZI	4–8 hr	12–24 hr	over 30 hr
Intermediate	Lente	1–2 hr	8–20 hr	20–28 hr

Semilente insulin is also short acting.

NPH insulin is also intermediate acting.

Ultralente insulin is also long acting.

17. Evaluate yourself with at least one other student.

18. Evaluate yourself with at least one other student.

19. *Hyperglycemia*: 2, 3, 5, 6, 7.

*Hypoglycemia*: 1, 4.

(a) for all of them. 1 (b), 2 (d), 3 (c), 4 (b), 5 (c), 6 (d), 7 (c).

20. Martha Baker, Marilyn Popula, and Robert Robust are all candidates for ketoacidosis if they become hyperglycemic because they are insulin-dependent diabetics.

Robert Worldson and Madge Sommer are non-insulin-dependent diabetics and can also develop hyperglycemia, but probably not ketosis because their body does produce small amounts of insulin.

21. Marilyn Popula has hot, dry skin, her urine tests orange or positive for sugar, she is drowsy, her breath has an acetone odor, and she has Kussmaul respirations.  
Robert Robust has Kussmaul respirations.  
Robert Worldson has flushed dry, hot skin and rapid, weak pulse, and is semiconscious.
22. All need insulin to reduce the high blood sugar level.  
All need fluid and electrolyte replacement to reduce the severe dehydration. Only those in ketosis, however, require sodium bicarbonate to correct their pH imbalance.  
All need close observation for cardiac irregularities due to potassium imbalance.
23. *Infections:* Tissues are slow to heal (circulatory problems). Prevent skin breakdown by careful care of toenails. (Avoid cutting; use professional foot care.) Avoid injury. Evaluate limbs to promote circulation.  
*Visual disturbances:* Again circulatory problems cause retinopathy. Careful control of the disease prevents or slows this down. Use great care for preventing accidents from falling, stumbling into objects, and so on.  
*Vascular problems:* Atherosclerosis of coronary arteries and other arterial changes. These can be cut down by careful control of the disease. The vascular problems contribute to all other complications. Meticulous cleanliness, proper-fitting shoes, rest, and exercise all play a part in keeping complications to a minimum. Plan your teaching with these facts in mind. Remember that patients are most willing when they understand why!
24. Share your nursing care plan in postconference or turn in to your instructor.
25. *Effects on men:* Decreased libido, impotence.  
*Effects on women:* Decreased ability to experience orgasm, dyspareunia if frequent vaginal infections (yeast).  
*Nurse's role:* Assess whether problem exists, refer to appropriate source of help, teach patients how to keep diabetes under better control to prevent neurological and vascular complications.
26. You should have 1, 4, 6, 7, 8, 9 checked.

## LEG VI-C

1. (a) *Immobility* and lack of exercise cause fluid to collect in lung, decrease expansion of lung tissue, decrease removal of bronchial secretions, encourage venous stasis in lower extremities, and formation of emboli. *Tube feeding* causes mucus and bacteria to collect on tube that can drop into trachea causing pneumonia. *Improper feeding methods* can accidentally introduce formula into trachea, causing pneumonia.
- (b) *Morphine* depresses respiration. *Immobility* after surgery causes mucus plugs to form and if not removed by coughing, can cause atelectasis to occur. Venous stasis also is occurring in legs.
- (c) *Mineral oil* as a lubricant in the nares can cause oil droplets to fall into the trachea, causing aspiration pneumonia. *Always* use a water-soluble lubricant, not mineral oil.
- (d) *Immobility* decreases lung expansion and increases venous stasis.
- (e) *Lack of humidity* in the air will dry out the secretions and cause mucus plugs to form rapidly. *Lack of body fluid* will aid in the drying out of secretions.
2. Sitting upright to breathe; dusky color; barrel-shaped chest; use of accessory neck muscles to breathe, high BP and rapid pulse, confusion.
3. (a)
4. (b)
5. By droplets in the air and in the sputum she is expectorating.
  - (a) Teach patient to cover mouth with tissue when coughing.
  - (b) Supply receptacle for used tissues and empty it frequently.
  - (c) Turn your face away from patient when he coughs.
  - (d) Wash your hands when leaving patient.
6. *Pulmonary function tests*—(c); *arterial blood gas analysis*—(b), (d); *bronchoscopy*—(a).
7. *Prior*: Nothing by mouth for 6–8 hr to avoid vomiting and aspiration. *Following*: Nothing by mouth until patient can cough, and swallow reflex returns to avoid aspiration. *Observe for* hemoptysis (report excessive bleeding), dyspnea, subcutaneous emphysema around face and neck, SOB and laryngeal stridor from edema.
8. No. 1 add; label container with patient's name and room number.  
No. 2 add; instruct patient about what you want, why you want it, and when you want it.

No. 3 delete and change to force fluids to liquefy secretions.

No. 5 add; check specimen to see if it contains food, etc., that would make it unacceptable to the lab.

9. Acidosis.

10. (d) Somnolence and decreased attention span are signs of hypoxia, which causes respiratory acidosis if unrecognized. It needs to be treated immediately before he drifts into respiratory failure. You should also consider the possibility of hypercapnea ( $\text{CO}_2$  narcosis).
11. *Oxygen* to increase concentration in blood and decrease respiratory efforts to obtain it; *emetic* to remove mucus plugs by vomiting and stimulate respiratory secretions to liquefy secretions; *sedation* to prevent exhaustion from dyspnea and reduce anxiety and resultant bronchospasm; *force fluids* to liquefy secretions; *elevate head of bed* to expand thoracic cavity and decrease dyspnea; *bronchodilator* to dilate bronchioles and make breathing easier; *antibiotic* to fight infection; *antitussive* to decrease coughing; *expectorant* to liquefy secretions and make them easier to cough up; *narcotic* to reduce pain; *antihistamine* to reduce inflammation due to allergy; *corticosteroid* to reduce inflammation due to any cause; *postural drainage* to aid in the removal of secretions from all lobes of the lung; *IPPB* to increase the exchange of gases, liquefy secretions, deliver medication to lung tissue, stimulate removal of secretions and plugs; *cold humidification* to liquefy secretions, and reduce temperature; *breathing exercises* to relax and get maximum ventilation with less energy and increase muscle strength.
12. Your four problems might include excessive, unproductive coughing from thick, sticky secretions that cannot be raised easily; fatigue due to decreased oxygen; heart enlargement due to pulmonary hypertension; and acute infection due to lowered resistance and presence of chronic infection. Share your plans during a postconference or discussion time or as directed by your instructor.
13. Compare what your observer saw you do and what you planned to do.
14. Anxiety increases oxygen consumption and thus the heart rate and the respiratory rate. It can aggravate an asthmatic attack.
15. Your answers might include the following: increasing humidity, forcing fluids, instructions in how to cough effectively, assisting the patient to splint, moving around, postural drainage and clapping, using expectorants.
16. (a)



17. Your answers might include the following: raise the head of the bed, provide a beverage to be sipped, help patient relax, teach coughing techniques that remove secretions if present (if rhonchi are heard in the lungs), reduce irritants such as smoke in the room.
18. *Reply:* The purpose of the IPPB is to help you cough up this thick sputum, so it looks like it is doing the job.
- (a) Find out if there is a requisition for a sputum specimen or if the doctor might like to see the sputum, in which case you would save it in a sputum jar with her name, date, and time on it.
  - (b) Chart the description of the sputum in the nurse's notes.
19. Elixophylline is a bronchodilator that relaxes the bronchioles. It is given orally or rectally and may cause gastric irritation. Teach the patient to report side effects and to watch young children for signs of increased CNS stimulation such as irritability, insomnia, headache, or twitching.
20. Attend a GES to share your plans and role play teaching and preparing patients for discharge.
21. All of the above could be acceptable nursing actions. However, (c) is better than (d) unless the distress is severe. During an asthmatic attack the smooth muscles of the bronchi contract and go into a spasm. Then edema of the mucous membranes occurs and the thick secretions increase. Nursing actions should be aimed at relaxing the spasm. Tedral contains two ingredients that have sympathomimetic actions and are bronchodilators. A third ingredient is phenobarbital, which will sedate and decrease anxiety, another factor that increases bronchial spasm. Another consideration is route of administration, how fast relief can be obtained, and how severe the distress is.
22. (a) Help him to clarify feelings of fear that he will not be adequately cared for and give him information about the type of medical orders you have at your disposal were he to need them.
- (b) Excuse yourself from the room and talk with another staff member if you find you are feeling hurt, angry, or such, and unable to listen objectively to the patient's complaints. Discuss his reasons for feeling anxious and ways he could show it. Then return to the patient and tell him you are still concerned about how he is feeling. If you are unable to return to the patient, then see that another person does.
23. Your teaching should include a schedule of a day's activities to allow for regular exercise as well as for periods of rest. Encourage breathing out with pursed lips when exerting; for example, when going up stairs or lifting a heavy object.



24. *Activity:* Turn him from side to side every 2 hr.  
*Nutrition:* Offer him small amounts of fluid frequently in whatever container is easy for him to drink from. Avoid carbonated drinks.  
*Environment:* avoid chilling from wet linen. Change as necessary.
25. (a) Find out special food and fluid preferences.  
(b) Offer fluids frequently.  
(c) Special mouth care.
26. Compare your actions with the checklist.
27. Compare your actions with the checklist.
28. Increased restlessness; rapid weak pulse; increased retractions; increased noise of breathing; cyanosis.
29. Color, degree of retracting, exact fluid intake and output, noise and voice, any sign of restlessness. Observe the patient together.
30. Compare what your observer saw you do with the skill list.
31. Compare what your observer saw you do with the skill list.

## LEG VII-A

1. The incidence of vomiting and the degree of pain are reduced in a patient who has reduced his preoperative fears by asking questions and expressing concerns. The amount of anesthesia required is reduced in a patient with decreased anxiety and is therefore safer.
2. *Clues to patient's fears:* "Hated to come in the hospital." "There's always the chance it's malignant."  
*Nurse's responses to patient:*
  - (a) Directs conversation away from patient's feelings and toward his work.
  - (b) Denying the patient's right to worry.
  - (c) & (d) Encourage the further expression of concerns by recognizing his feelings.
3. Did your observer hear you do the following:
  - Encourage the patient to talk about the forthcoming surgery.
  - Encourage the patient to express his feelings about the surgery and the change it will make in his appearance.
  - Accept his feelings regardless of what they are.
  - Use therapeutic communication skills to help the patient examine his feelings and concerns.
4. He is in a safe age range. His smoking will have decreased his respiratory function and increased the secretions in the respiratory tract. His hepatitis may have decreased his liver function and his ability to detoxify drugs. His kidney and heart condition should assure good elimination and circulation. The walking during golf will have benefited his respiratory and circulatory system. The burden of extra weight will place an extra strain on his heart.
5. Obesity, malnutrition, dehydration.
6. Encourage fluid intake; explain the importance before the NPO order. Offer a vitamin C enriched, sweetened drink the evening before surgery. Discuss the preoperative orders of withholding fluids with the physician; be sure the NPO time is appropriate for the time of surgery. Offer popsicles and lollipops to children as sources of fluid and glucose.
7. Careful assessment of total fluid intake in relation to total fluid output to prevent circulatory overload. Make every effort to encourage oral intake; I.V.'s are a very temporary measure and should be discontinued as soon as possible.  
Encourage ambulation. Ambulation increases appetite as well as prevents many post-operative complications.

Make mealtimes as appealing as possible; avoid treatments and dressing changes near mealtime.

Encourage patients to eat and drink slowly to avoid swallowing air.

Increase protein to correct negative nitrogen balance.

8. *Explanations:* That he will have nothing to drink and I.V.'s will be running; will be a drainage tubing in place for a few days, possibly a ng tube.

*Teaching and practice:* How to deep breathe and cough; how to do leg exercises in bed; how to splint incision.

9. Did you prepare the room so the stretcher can easily reach the bed, supply extra linen and pads for the bed, and equip the room with the necessary supplies?

10. (a), (b), (c), (d), (e), (g), (h), (i), (l), (m), (n), (o), (p).

11. (a), (d), (e).

12. *Equipment:* Container for water, soap, razor, gauze, scissors, bright light. Does your list include the following actions?

Explain procedure to patient and drape him or her.

Remove long hair with scissors.

Soap area with soap and water on gauze.

Shave area, being careful not to nick the skin.

Rinse area with water and gauze.

Check for any missed hairs.

Dry area.

13. 5 A.M.: while patient sleeps, 3, 4, 5, 6, 20—check to see they were done the previous evening.

6:30 A.M.: awaken patient to bathe, mouth care, void, and 1, 2, 7, 11, 12, 17, 21.

7 A.M.: give first preoperative medication and 8, 9, 10, 13, 14, 15, 16, 18, 19.

When surgery calls, give second medication and 8.

14. A. (a) (f); (b) (c) (d) (e).

B. (a) (h) (i); (c) (g).

C. (a) (f) (i); none.

D. (a) (f); (d) (j) (k).

15. Have your instructor or another student evaluate you according to your list. Be sure you know the reasons for your steps.

16. 0.4 cc or 6 minims. Give it I.M.

17. *Behavior*

- (a) Unconscious.
- (b) Restless, open eyes, and may talk unintelligibly or groan.
- (c) Reactive, appears fully conscious, understands your instructions, talks intelligibly but does not remember.

*Safety Measures*

- (a) Side rails up at all times.
- (b) Constant observation of behavior; check vital signs every 15 minutes.
- (c) Position to avoid aspiration.
- (d) Keep airway in position until gag reflex returns.

18. (a) Fall in blood pressure. (b) Rapid, weak pulse; respirations rapid and shallow; decreased temperature. (c) Pallor. (d) Restlessness, feeling of apprehension. (e) Cold, moist skin. (f) bleeding visible on dressings, emesis, oozing from nares (T & A), frequent swallowing (T & A). (g) Dry mucous membranes. (h) Thirst.

19. Does your list of steps include the following actions?

- (a) Wash your hands if time permits.
- (b) Turn on suction machine and fill cup with saline or water.
- (c) Insert suction catheter into nares or mouth with Y-tube open so suction not working.
- (d) Cover Y-tube opening to start suction after catheter in place.
- (e) Rinse suction tip in solution to clear as necessary.
- (f) Wash your hands when finished.

When suctioning following a tonsillectomy, avoid dislodging clots in back of mouth so only suction front of mouth, and do that gently.

20. All of the actions are appropriate for these reasons:

- (a) The catheter may be plugged and the bladder distended.
- (b) There may be an overload of fluid on the circulatory system because of her age.
- (c) There may be bleeding and early signs of shock.
- (d) Pain can cause stress and shock symptoms.
- (e) She may be in early shock.
- (f) There may be respiratory obstruction from poor positioning.

21. (d) To prevent the patient from aspirating her vomitus.

22. All of the answers are correct.

23. (c).

24. (a) is the most complete answer.  
 (c) is correct but does not explain why.  
 (b) and (d) are incorrect.
25. Atelectasis (a), (c), (e), (g), (i).  
 Thrombophlebitis (b), (d), (g), (i).  
 Wound infection (f), (h), (j).
26. Evaluate yourself with at least one other student.
27. (a) Increase, decrease; (b) decrease, increase; (c) decrease, decrease.
28. (a) Avoid iced drinks, increase food intake; move around, walk; drink hot fluids; expel gas with rectal tube or more privacy in bathroom, enema if ordered.  
 (b) Position on bedpan as close to normal as possible, provide privacy, pour warm water over perineum or put hands in basin, run water.  
 (c) Suck ice chips or sips of tea or a fluid patient desires; restful environment; remove food.  
 (d) Position change; back rub and conversation; allow patient to choose type of treatment to relieve pain.  
 (e) Increase fluid intake, hot liquids; increase roughage, food intake; privacy in bathroom; more exercise; enema if ordered.  
 (f) Encourage deep breathing qlh and turn and exercise in bed frequently.
29. Share your care plan in postconference or as directed by your instructor.
30. May have pain related to surgical incision. Ask if he is having pain.  
 May have fears about too much activity causing harm. Explore with patient.  
 May not ask for pain medication related to self-image. Accept patient and provide relief without his asking.  
 Unable to ambulate safely without assistance, related to pain, fear. Walk with patient until steady on his own.
31. Find out when and what he received last and determine its effectiveness.  
 Find out which he prefers. Explain the effect of each and how they differ. Assess the severity of his discomfort.  
 Investigate the possibility that his earlier nausea was related to receiving an analgesic.  
 Check his vital signs.
32. (d) and (f) are first-level needs and must be met first. What levels do (a), (b), (c), and (e) represent? Put them in order also.



33. Compare what your observer saw you do with what you actually did. Charting to include description of wound, care given, amount and color (and odor if present) of drainage, type of dressing applied.
34. Do your lists include charting of medications and signing of each checklist and chart? Which actions can be delegated to nursing assistants and which must the RN perform? What will you do if the orderly comes for the patient before the patient is ready?
35. He could help her with good mouth care and hairbrushing the morning of surgery before she is medicated.  
After surgery he can rub her back and shoulders.  
He can remind her to take deep breaths every 20–30 minutes and to wiggle her feet and toes.



## LEG VII-B

1. *Semipermeable membranes* allow water and selected electrolytes to move between the ECF and ICF.

*Plasma proteins* hold water within the blood vessels.

*Kidneys* can conserve or release water and electrolytes.

*Gastrointestinal tract* replenishes the fluids and electrolytes through the diet.

*Nervous system* regulates the kidneys and the hormones.

*Hormones* stimulate the kidneys to increase or decrease reabsorption of water.

*Electrolytes* regulate the osmolarity of fluid in the ECF and ICF.

2. The infant has a higher percentage of body weight composed of fluid and yet has a smaller reservoir for fluid. His metabolic rate is higher; his kidneys are immature and require a greater amount of water to function.

The grandmother has a reduced sensation of thirst and thus a reduced intake of fluid. Her kidneys also need a greater output of urine because they cannot concentrate urine as efficiently as in earlier years. She may be a mouth breather and be losing fluid in this fashion.

3. *Diarrhea*: Evaluate the diarrhea by reporting frequency, amount, consistency, time of occurrence and associated discomfort (e.g., cramping). If symptoms become severe, I.V. fluids may be needed. Give antidiarrheic medications as ordered and force fluids po if ordered.

*Inadequate fluid intake*: Give fluids as tolerated and ordered (small frequent amounts). May need I.V. Watch for signs of electrolyte imbalance. Push fluids by trying to find patient preferences.

*Postoperative bleeding*: Observe carefully for other symptoms of bleeding. May be normal reaction following surgery (result of NPO and trauma to tissues). Report; give fluids as ordered.

*Nausea and vomiting*: Report symptoms observed. Prepare to give I.V. fluids as ordered. Watch for signs of other imbalances. Give comfort to patient by staying with him or her.

4. Did you ask the patient questions about subjective symptoms? Did you take the patient's vital signs or compare a recent one with earlier ones? Did you find any lab results that indicated an imbalance? Any nursing notes that described observations? Some of your nursing actions may have included the following:

Monitor I.V. fluids frequently and carefully so the flow rate does not vary.

Record the I and O accurately—alert visitors to this need.

Make frequent written observations of the patient.

Give special attention to dry areas or where edema may be present.

Check for a safe environment—rails, lights, furniture.

5. Increased sodium:

excitement, decreased urinary output, increased temperature and pulse.

Decreased potassium:

anorexia, soft muscles, abdominal distention.

Decreased magnesium:

tremor, disorientation.

6. You may have a variety of answers for this one. Postoperative gastrectomy patient with continuous suction, allowed sips of water, and has symptoms of apprehension, anuria, and abdominal cramps. This is an example of a  $\text{Na}^+$  probably due to too much oral water, which allows  $\text{Na}^+$  to be excreted in excess amounts.

7. *Drug allergy*: Report the symptom. Stop the medication until the physician is notified. Restrict fluids, provide rest for the patient, and then try a carbonated drink if allowed. Allergic response to drug.

*Intestinal obstruction*: Fecal material may be contents of vomitus due to reverse peristalsis. Check vital signs; look for abdominal distention, passing flatus. Report immediately; usually a surgical emergency.

*Vertigo*: Avoid quick motion when changing position. Limit physical activity after eating; limit visual work. Administer antiemetic drugs or sedative drugs as indicated. Vertigo triggers nausea mechanism.

*Postoperative*: Report. Encourage the patient that this is only temporary and a fairly common result of anesthesia; drugs as ordered; restrict fluids (oral); I.V. may be ordered or sips of carbonated drinks.

8. *Secretary*: Embarrassment or fear of embarrassment due to urgency and frequency of bowel movements.

*Infant*: Dehydration and excoriation. Signs to look for: dry diapers—no urine, eyes sunken, movements sluggish.

*Patient on Decholin*: To identify cause (rule out drug cause) is the physician's role. You must help her with her worry and concern over the change in bowel habits. Instruct her about physician's orders.

Check your list with at least one other student.

Compare how you used each of the following steps of the nursing process to improve the problem:

assessment

analysis

planning

implementation

evaluation

9. *Lung function*: Hyperventilation, deep rapid breathing results in blowing off of carbon dioxide; results in depletion of carbonic acid, and plasma pH is elevated. Can occur with hysteria, fever, anxiety, all of which may cause oxygen lack—*respiratory alkalosis*.

*Respiratory acidosis:* Results from respiratory embarrassment due to impairment in exhalation of carbon dioxide. Any respiratory depressant (e.g., lung disease or morphine) can cause an elevated plasma bicarbonate due to elevated ECF carbonic acid.

*Vomiting:* Causes loss of chloride secretions of gastric juices, which causes an elevated plasma bicarbonate and *metabolic alkalosis*. Usually potassium deficit occurs that complicates the situation and prevents correction of the imbalance unless the potassium deficit is corrected first.

*Metabolic acidosis:* Occurs with a deficit in the base bicarbonate in plasma due to decreased food intake, diabetes mellitus, or generalized infection. Ketogenic diet or renal failure can also cause this. If vomiting should occur with metabolic acidosis, its cause of metabolic alkalosis may help the acidosis compensation.

*Diarrhea:* Occurs with metabolic acidosis and complicates the situation.

10. Pulmonary system, Renal system

- (a) Buffer system and ion exchange that dilutes the H in the ECF.
- (b) Respiratory system.
- (c) Renal system.

11. A patient who is:

Taking a potent diuretic.

Taking sodium bicarbonate at home to ease his or her gastric ulcer pains.

On gastric suction.

Prolonged vomiting.

12. Muscles are hypertonic.

Shallow breathing.

13. (a) 5% glucose in normal saline—watch for overhydration, dyspnea, cyanosis, puffy eyes.

(b) 1/6 molar sodium lactate—watch for alkalosis.

(c) Ammonium chloride in water—watch for acidosis.

(d) Electrolyte #75—check urinary output.

14. 84 cc/hr. Microdrip at 60 gtts/ml should drip at 84 gtts/min. Observe for cough that is moist, dyspnea, cyanosis, engorged neck veins, puffy eyelids.

15. (d) is correct. Administering I.V. fluid is the same as administering a medication, and you are legally responsible for anything you give the patient. Always check the order yourself instead of taking someone else's word for it.

16. (b).



17. Drip chamber is empty; bottle is empty; tubing is kinked; air vent is closed; tubing is full of air or blood, bottle is hanging too low.
18. Your answers will vary but can include repositioning the patient's arm, applying pressure to vein beyond the end of the catheter (needle), and observing for change in drip rate. If the dripping stops, the catheter is still in the vein. If there is air in the tubing, you need to remove it with your instructor's assistance before adding an additional bottle of solution.
19. (a).
20. *Two-lumen tube:* Balloon is for injection of mercury or air. No suction should be connected to it; no irrigating solutions can be instilled into it. It could be labeled "Hands off" or "Don't touch" just to remind you. The suction-labeled opening can be connected to suction and used for irrigating. This lumen connects with the holes at the tip of the tube, allowing for suctioning and irrigating.  
*Three-lumen tube:* One balloon-labeled "Opening" goes to esophageal balloon and is closed by a clamp at prescribed pressure. A manometer is attached to this tube. Other balloon opening is to gastric balloon, which is inflated with air to hold the tube in place. The other opening is labeled "Suction" and is used for suction and irrigation. Irrigation may be required to keep the tube patent. Suctioning is continuous to keep the stomach empty to prevent vomiting and dislodgement of esophageal balloon.
21. Attend a GES.

## LEG VII-C

1. Lack of regular exercise, diet high in sodium and saturated fats, smoking, high stress level.

2. (d).

### 3. *Hypertension*

Cause: The cause of primary hypertension is unknown.

Theories of causes include: heredity, salt and water metabolism, kidney function disturbances, emotional stress, obesity.

Symptoms: Sustained elevation of diastolic pressure; headache, dizziness, fatigue, nervousness.

#### *Congenital Heart Defects*

Cause: Rubella in expectant mother during first trimester.

Irradiation or drugs such as thalidomide.

Maternal malnutrition and heredity.

Symptoms:	Acyanotic	Loud harsh murmurs Frequent respiratory infections Normal growth and development
	Cyanotic	CHF in infancy Dyspnea, easy fatigability Slow growth and development Frequent respiratory infections

4. **SGOT:** To detect tissue damage such as necrosis of heart muscle. It is expected to be elevated if a MI has occurred.

*Prothrombin time:* It indicates how quickly the blood will clot. When the patient is receiving a medication to change the amount of prothrombin in the blood, his or her blood is compared with another person's (control sample) who is not receiving such a medication. The patient's prothrombin time, or the time it takes the blood to clot, should be longer than the control's time but not more than twice as long. If it is over 30 or 35 seconds, no further medication should be given without physician's verification.

5. (c) is the best answer because it tells the patient specifically what will happen and how it will feel as well as the purpose of the procedure.

6. Write down each of your observations as you complete your assessment. Then compare your observations with your list from your clinical lab experience. Did you include everything or were some overlooked? You must develop a pattern of assessment because you won't be able to have lists in your pocket as you work.

One person counts the radial pulse for one minute while a second person counts the apical rate, using a stethoscope, for the same minute. The two rates are recorded as A/R. Your observing student should see you and another person accomplish the above.

7. (a) Bacon, added salt on egg, lox.  
(b) Those above plus tomato juice (unless salt-free), limited amounts of cream cheese, coffee, and cream.  
(c) Bacon, egg, cream cheese.
8. *Mild sodium restricted diet*: Allows a moderate amount of salt to be used in cooking, but no salt is to be added at the table. Avoid salty foods.  
*500-mg sodium diet*: Allows no salt to be used in cooking, no salty foods, and limited amounts of meat, milk, and egg; deletes vegetables with high sodium content.
9. *Diuretic*: Remove excess water and sodium from body.  
*Digitalislike medication*: Strengthen contractions of heart and slow rate.  
*Intake and output*: Monitor fluid balance.  
*Weigh daily*: Monitor fluid balance.  
*Apical-radial pulse*: Detect difference between heart rate and pulse.  
*Elevate head of bed*: Improve breathing.  
*Low sodium diet*: Decrease amount of fluid retained in body.  
*Oxygen*: Decrease work of the heart.  
*Bed rest*: Decrease work of the heart and relieve signs and symptoms of decompensation.  
*Vital signs*: Detect changes in the circulatory system.  
*Paracentesis*: Remove fluid from abdominal cavity.
10. *Relief of pain*: Required by both. Angina treated with medication to dilate coronary blood vessels (e.g., nitroglycerin). MI treated with narcotic (e.g., morphine and oxygen).  
*Rest*: Required by both. Angina requires a short period of rest until pain subsides. MI requires extended bed rest to decrease body's need for oxygen while heart muscle is healing.  
*Diet*: Both may require fat controlled to reduce the formation of atherosclerosis. MI may require sodium restricted or low calorie to reduce fluid, weight, and prevent distention.  
*Exercise*: Encouraged for both as tolerated to promote coronary circulation. This program is carefully prescribed by the physician.
11. *Anticoagulant*: (a), (b), (e), (f), (g), (h), (k), (m).  
*Antiarrhythmic*: (i).  
*Antihypotensive*: (c), (d).  
*Antianginal*: (j), (l), (n), (o).  
*Antihypertensive*: (c), (n).  
*Diuretic*: (p), (q).  
*Cardiac glycoside*: (i), (r).

12. Take turns teaching about medications, nutrition, ADL, and rest. Include simulated family members.
13. American Heart Association, Visiting Nurse Association, Homemakers.
14. Attend a GES to evaluate your nursing care plan.
15. False, true, true.
16. Relaxation techniques, attending a stress reduction program to learn new ways to handle stressful situations.
17. (a) Make an observation of what you see (e.g., "I see you are sitting up and smoking although Dr. \_\_\_\_\_ wishes to lie quietly in bed and avoid cigarettes."). This gives the patient an opportunity to explain why he is doing it.  
(b) Empathize with the patient (e.g., "It must be hard to lie in bed all day and not smoke when you feel well"). This tells the patient that you can accept his feelings even though his behavior disobeys the doctor's orders. Use the bath time to review the reasons why he should not smoke.
18. Your descriptions will vary (use a real one). Every activity is measured in calories for the energy expended (e.g., self-care activities are mostly in the range of 2.5; slow walking is 3, showering is 4, and brisk walking is 5). This sequence would be followed while in the hospital. The energy requirements on the job should be examined (e.g., is it a brisk-walking or sitting job, does it require stopping, lifting, running, etc.?).  
Exercise tolerance needs to be built up gradually until it meets the job requirements, or perhaps modified (e.g., perhaps the patient should not take work home, should avoid long driving trips, should schedule a quiet restful lunch time).  
Your answer should also include a description of the patient's normal recreational interest and the energy costs. Bike riding and swimming are strenuous; golf is not. The patient needs to understand that he or she can prepare for these activities, but if the patient is not prepared, then they can be harmful. Once the patient is prepared, he or she must remain at that level with daily exercise.
19. Symptoms present are: slightly short of breath; tired the following day.
20. *Mr. Puffen's* heart disease and poor circulation probably contributed to his fluid excess. Your best effort upon admission is to elevate the head of the bed and stay with him until he is well settled and feeling your interest and concern. Give medication as ordered. *Mrs. Reno* probably has a history of chronic kidney disease, and the oliguria is a symptom of an acute phase. That her body is retaining fluid indicates a need for

hiatus hernia  
impaction  
infection  
intestinal obstruction  
nausea and vomiting  
LEG VII-C Cardiovascular Problems  
angina pectoris  
heart failure  
    left side  
    right side  
myocardial infarction  
rheumatic heart disease  
hypertension  
tetralogy of Fallot  
LEG VIII-A Problems to Labor and  
    Delivery  
normal labor and delivery  
normal newborn  
placental separation  
LEG VIII-B Problems Related to the  
    Postpartum Period  
normal postpartum  
postpartum depression  
normal newborn  
high-risk newborn

LEG VIII-C Gastrointestinal Problems  
celiac disease  
cholelithiasis  
cholecystitis  
Crohn's disease  
diverticulitis  
dumping syndrome  
gastroenteritis  
hemorrhoids  
hepatitis  
Hirschsprung's disease  
Ileus  
Intussusception  
jaundice  
lactase deficiency  
malabsorption  
pancreatitis  
peritonitis  
pyloric stenosis  
surgical procedures  
tumors  
ulcerative colitis  
ulcers  
volvulus



# Audiovisual Sources

The initials listed below are used to indicate the sources of audiovisuals.

A	Ames Company PO Box 70 Elkhart, IN 46515			Los Angeles, CA 90069-9990 800-334-7830
AB	Abbott Laboratories Audiovisual Services, D-383 North Chicago, IL 60064	CM		Concept Media PO Box 19542 Irvine, CA 92713
AHA	American Heart Association (Contact your local or state association)	CML		Griggs Film Library Claremont Foundation, Inc. PO Box 187 Claremont, CA 91711
AJN	American Journal of Nursing Educational Services Division 555 West 57th Street New York, NY 10019 800-223-2282	D		Durrin Films, Inc. 4926 Sedgwick St. NW Washington, DC 20016
ALA	American Lung Association 1740 Broadway New York, NY 10019 (For rental contact local chapter)	DG		Davis & Geck Film/Video Library 1430 Broadway, 9th Floor New York, NY 10018
B	Robert J. Brady Co. Bowie, MD 20715	EL		Norwich Eaton Pharmaceuticals, Inc. Audiovisual Librarian 17 Eaton Avenue Norwich, NY 13815
BAN	Bandera Enterprises, Inc. PO Box 1107 Studio City, CA 91604	F		Filmmakers Library, Inc. 133 E. 58th St., Suite 703A New York, NY 10022
BD	Bard-Parker Professional Services Department Rutherford, NJ 07070	FI		Films Incorporated 733 Green Bay Road Wilmette, IL 60091
BWA	Barlas/Walker Associates 15 Lacosta Drive Natick, MA 01760	FL		C. B. Fleet Co., Inc. PO Box 11349 Lynchburg, VA 24506
CF	Carousel Films & Video 241 E. 34th St., Room 304 New York, NY 10016	FR		Film Fair Communications PO Box 1728 10900 Ventura Blvd. Studio City, CA 91604
CFD	Campus Film Distributors Corp. 24 Depot Square Tuckahoe, NY 10707	G		Geigy Pharmaceuticals (See MTP to order films.)
CHF	Churchill Films 662 North Robertson Blvd.	GSA		General Services Administration National Archives and Records Service

Stage IV: Purpose is to stabilize the mother's condition (e.g., vital signs, control of bleeding, recovery from anesthesia). This stage may last from 6 to 24 hours. Both muscle groups are involved.

8. Compare your lists with another student's list.
9. Compare your list with another student's list.
10. Insert the catheter between contractions.  
Insert the catheter 1½ to 3 inches (3.8–7.5 cm) to compensate for elongation of the urethra.  
Insertion is more posterior and downward because of the stretched urethra and the nearness of the fetal head.  
These above modifications are added to the strict asepsis, patient preparation, and smooth technique you have already learned.
11. Early deceleration occurs with head compression; you can see typical wave patterns on the monitor. This pattern does not usually require treatment and indicates that labor is progressing. However, if the FHR does not return to baseline within 30 seconds of the end of the contraction, late deceleration caused by placental insufficiency may be occurring. This is a very serious sign and requires immediate treatment such as administering O<sub>2</sub>, turning the mother on her side, stopping oxytocin, and so on.
12. (a) Circle b (1 cm) for beginning of first stage; circle c (10 cm) for end of first and beginning of second stage.  
(b) *Dilatation* is represented by the circles and means the enlargement of the cervical opening to allow the passage of the fetus.  
*Effacement* is the shortening of the cervical canal.  
*Station* is the numerical determination of the degree of descent of the presenting part of the fetus.  
All of which must go on for *engagement*, the passage of the presenting part of the fetus into the pelvic brim, and on to birth of the baby.
13. Uterine contractions can be likened to blood pressure diastole and systole to allow the heart periods of rest. Frequency, duration, and intensity of contractions must be watched closely. The patient's endurance and eventual success and delivery are dependent on this relationship. Your observations and descriptions will protect her from danger. Intensity is a relative term and takes much experience to judge well. Rule of thumb: mild muscle is somewhat tense; moderate muscle is moderately firm; strong muscle has feel of woody hardness and cannot be indented by pressure of fingers during acme. Note whether muscle relaxes completely between contractions. If any contraction lasts longer than 70 sec and is not followed by a rest interval with complete relaxation, it should be reported immediately because of danger to both mother and infant.

14.

	<i>Inhalation</i>	<i>I.V.</i>	<i>Regional</i>
Effect on fetus	possible narcosis	possible hypoxia	none
Effect on contraction	may inhibit	little or no effect	none
Stage of labor used	second	late second	late second
Nursing observations and actions	watch for signs of excessive bleeding, flushed face, deep stertorous respirations	watch for maternal laryngospasm, hypotension, and fetal hypoxia. O <sub>2</sub> to mother to prevent hypoxia	be sure mother is relieved of discomfort

15. Your answers will vary. Compare with a list provided by your instructor.

16. *Physiologic*

Dilatation 8–10 cm

Contractions q 45–60 sec

Contractions q 2–3 min

Dilatation complete

*Psychologic*

Withdrawal, drowsiness

depressed, nausea, trembling

Backache, urge to push

Highly suggestible, irritable

Relief with pushing

Totally involved

17. Use your list as a checklist to evaluate yourself with at least one other student. Did you include the following? Coach and encourage your patient to have her thighs flexed on abdomen and hands grasped below knees when a contraction begins; to hold her breath, exert downward pressure exactly like straining at stool; pull on knees and flex chin on chest to maintain downward pressure of diaphragm. To stabilize chest and abdominal muscles effort should be as long and sustained as possible. Compare this answer with the technique used in your area.

18. *Transfer to delivery room*: Primigravidas, usually when cervix is fully dilated; multiparas when it is 7–8 cm. If possible, the same nurse who has been coaching the mother should go with her to the delivery room.

*Fetal heart rate*: Should be checked q 5 min.

*Assisting patient on delivery table*: Both legs should be raised at the same time to be placed in stirrups to avoid straining pelvic ligaments. Avoid pressure on popliteal space.

*Coaching patient*: Coaching breathing should be continuous. Inform her of progress. Encourage her. She may doze between contractions. Straighten her legs to reduce muscular spasms. Dorsiflex ankle. Combine coaching with helping physician.

*Birth of baby*: Note and record exact time.

19. Third stage begins after delivery of baby and ends with delivery of placenta. Placental separation and expulsion occur about 5 min after birth of baby.

20.			
<i>Name</i>	<i>Average Dose</i>	<i>Route of Administration</i>	<i>Nursing Implications</i>
Ergonovine	0.2–0.4 mg 2 to 4 times per day	PO, I.M., I.V.	Assess: height, consistency, and location of fundus; lochia of postpartum patient
Pitocin	Dosage calculated in milliunits (mU) (1 ml Pitocin: 10 IU or 10,000 mU) is added to 1000 ml 5% DW; each 0.1 ml of solution contains 1 mU of Pitocin); usual dose is 1 mU at 15 min intervals	I.V. piggyback	Monitor vital signs for shock or hypertension and withhold medication if BP is 140/90 or higher.

*Nursing implications when oxytocin is being administered:* Patient must never be left alone. FHR and mother's vital signs and uterine contractions must be recorded every 15 min. The frequency, intensity, and period of relaxation between contractions should be noted. The resting period between contractions should be no less than 2 min, and a contraction should last no more than 90 sec. If signs of stress appear, the critical nursing intervention is to *shut off the oxytocin infusion* and open the plain solution flow, and then call the physician. When in doubt, shut it off.

21. Check fundus carefully and gently. (No constant massage should be given to fundus.) A sterile peri pad should be applied.
22. *Temperature:* Dry the infant and place him or her under a radiant heat warmer.  
*Apgar scoring:* Should be done at 1 and 5 min after birth. A lower score at 5 min indicates a problem.  
*Care of the cord:* Tie or clamp; assess the cord for 2 arteries and 1 vein.  
*Care of the eyes:* Instill 1 or 2 drops of silver nitrate or ophthalmic antibiotic ointment (if used in your area) in each eye.  
*Mother-infant bonding:* Place the infant on the mother's warm body after he or she is dry.



23. Note time of birth. Head held in downward position to facilitate mucus drainage. Gently rub back to stimulate cry prn. Gentle suctioning of mucus prn. Apgar scoring at 1-min and 5-min intervals after birth.  
Care of cord and eyes; identification according to hospital policy.
24. Compare these lists with those of other students. Practice until your weaknesses are moved over to the strengths column.
25. (a) and (b) are false; (c) and (d) are true.
26. (3).





## LEG VIII-B

1. *Reproductive system*: Involution; weight of uterus decreases from 500 gm at the end of the first postpartum week to 100 gm at the end of the third week; fundus decreases in size; lochia progresses from rubra to alba in about 10 days; ovarian function begins; Cervix and vagina begin to regain their tone, although never to the pregravid state.

*Vascular*: Declining blood volume with increase in hematocrit; the blood volume is generally back to prenatal amount by third week; Blood clotting factors are activated—predisposes to thromboembolism.

*Endocrine*: Hormones produced by trophoblastic cells are reduced; adrenal function becomes normal soon after delivery; thyroid function returns more slowly.

*Gastrointestinal*: Patient is usually hungry; bowel function may be delayed several days due to decreased muscle tone, diarrhea before delivery, or fear of pain from episiotomy or hemorrhoids.

*Urinary*: May be marked diuresis within 12 hours of delivery; kidney function and ureteral dilatation are greatly improved during the first month; bladder may be bruised and edematous; urinary retention must be watched for and prevented.

*Abdominal muscles*: Regain tone and prenatal length. Laceration (pelvic floor) and overdistention may cause delay.

2. Check your plan with another student or with your instructor.
3. *Hemorrhoids*: Cold pack for 20 min q4h; cold witch hazel compresses; moist heat; sitz bath.

*Engorgement*: Medications to suppress lactation, if appropriate; good supportive bra; use of ice packs and analgesics.

*Episiotomy*: Redness, edema, ecchymosis, discharge, and approximation (REEDA)—the five criteria for assessment; apply heat or cold; sitz baths and showers; cleansing; anesthetic sprays; analgesic ointment.

*Urinary retention*: Check every two hours, assist to void; keep good records on patient feelings, amount voided, and so on.

*Constipation*: Stool softeners and/or laxatives first or second day; exercise, roughage in diet, good fluid intake. Suppository or enema may be needed after third day.

4. Use your list as a checklist as you demonstrate doing a postpartum check.
5. Healthy pink color; good strong cry; heart rate 120–160 per min; well-flexed extremities; good muscle tone; irritable reflexes.

6.	<i>Fetal</i>	<i>Newborn</i>
Umbilical arteries	Patent	Functionally closed
Umbilical vein	Patent	Closed
Ductus venosus	Patent	Closed
Ductus arteriosus	Patent	Closed
Foramen ovale	Valve opening	Functionally closed

7. *First period*: Infant appears alert, eyes open; vigorous cry; sucks fist. Ideal time for being introduced to mother and father. After about 30 min the neonate may become less responsive and go to sleep.

*Second period*: Awakes from deep sleep; alert and responsive. It takes OBSERVATION by the nurse to identify normal and abnormal activity during these periods. Some of the patterns seem erratic. Monitors cannot make judgments. This period lasts two to five hours and provides another get-acquainted time for parents and baby.

8. Corneal reflex (blinking)	Babinski's
Pupillary reaction	Moro
Nose: sneeze	Startle
Mouth: sucking	Tonic neck

9. *Temperature*: Axillary, 36.5–37°C (97.7–98°F); rectal, 35.5–37.5°C (96–99.5°F).

*Heart rate*: Apical, 120–140 per minute.

*Respirations*: 40–60 breaths per minute.

*Blood pressure*: Systolic, 60–80 mm/Hg; diastolic, 40–50 mm/Hg.

10. *Red blood count*: 4.8–7.1.

*White blood count*: 9,000–30,000.

*Platelets*: 140,000–300,000.

*Hematocrit*: 44–64%.

*Hemoglobin*: 14–24.

11. *Heat production*: Shivering mechanism is usually not operable. Brown fat (rich vascular and nerve supply) produces almost 100% of the neonate's heat. Brown fat is rapidly depleted by cold stress.

*Temperature regulation*: Thermal insulation is less in neonate. Blood vessels are closer to skin surface, vasomotor control is not well developed. Sweat function is very little before fourth week. Neonate has a larger body surface per weight ratio. All of the above make temperature regulation precarious at best.

*Effects of cold stress*: Oxygen consumption and energy are diverted from normal brain cell and cardiac function in order to create heat for the neonate. Vasoconstriction may follow, causing abnormal arterial blood gases. For temperature control the neonate must depend on you to keep an even, optimum environment.

12, 13. Evaluate your listed steps with at least one other student. Use them as checklists for helping a new mother.

14. *Deladumone* (combination estrogen and androgen). I.M. once daily, as soon as possible after delivery, or at the time the cervix is completely dilated.

*Diethylstilbestrol*, po, during early postpartal period and gradual decrease.

Androgens can retard onset of menstruation.

Uterine bleeding may follow estrogen therapy.

Lochia discharge is heavier; more bright-red blood after stilbestrol.

15. The Apgar system is a simple, accurate, and safe means of quickly evaluating the condition of the infant. Five signs, in order of importance, are heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each sign is evaluated according to a score of 0, 1, or 2. This evaluation is done at 1 min and 5 min after birth. Note very carefully low scores on infants and observe the infant so that you can evaluate a newborn accurately.
16. Compare your list with at least one other student. Use it as a checklist to evaluate your nursing actions as you admit an infant to the newborn nursery.  
Did you include giving vitamin K, weighing the neonate, assessing the condition of the skin, cord, vital signs, color, gestational assessment?  
Did you chart?
17. Evaluate your steps against your nursing actions with at least one other student.
18. Evaluate your steps of teaching a parent about infant care with at least one other student. Use it as a checklist as you carry out the procedure.
19. Compare and discuss your list with at least one other student.
20. She is resentful of the interruption of her career goals. She feels her husband can't appreciate her problems or feelings. She feels guilty because of these feelings.
21. Find out how Tom really feels. Find out more on each of the patient's feelings stated in Question 20. Did you use an assessment tool?
22. Talk with Tom and listen to his feelings. Take time to talk with the patient. Read an article from the reading list to be better prepared to help the patient.
23. Acceptance of feelings of resentment, recognition as a new mother, satisfaction and success as a new mother.  
"I overheard you talking to your roommate about not being able to finish the term at school. You must have mixed feelings about your baby and school. . . ."  
and/or  
"Do you feel guilty about wishing the baby had arrived a little later?"



and/or

“Are you thinking: ‘Lucky ol’ Tom, this won’t change his life very much’?”

and/or

“Seems like you’ve been doing all the adapting, and instead of giving *you* the recognition, all he talks about is the baby.”

24. “*Blues*”: (a), (c), (d), (e), (i).

Psychosis: (b), (f), (g), (h), (j), all excessive.

25. Clues:

No. 1: “Every feature is just perfect.” Excessive preoccupation with infant? Keep alert; could be natural pride; could be more.

No. 2: Long list of concerns—remembered in detail. Follow this up to find out validity of concerns.

No. 3: “. . . Too tired. I’m here for a rest. . . .” Disinterest? What more will you look for? What day postpartum did this occur? Why is this important?

No. 4: “*My Mother . . . I’ve tried. . . .*” Preoccupation with self? Find out what’s behind these comments, may be normal response.

No. 5: “She can’t be messy, not *my* baby.” Preoccupation with self? Observe mother-infant relationships.

26. Plan time to talk with Mrs. N. S. about infant feeding to determine her thoughts, feelings, and knowledge about it. Plan to be there when the infants are brought out of the nursery; observe, make some specific suggestions, and give praise. Talk to the nurses in the nursery to encourage them to reinforce the teaching and give support to this mother.

27. L.M.—(a) 3, (b) 3, (c) 1, (d) 2.

D.L.—(a) 1, (b) 3, (c) 2.

28. *Teenage tasks*:

Achievement of new and more mature relations with age mates of both sexes: finds herself isolated from peer group.

Achievement of a feminine social role: limits feminine role to one of procreation; becomes overt adult sexuality; opportunities for social development are given up or delayed.

Achievement of independence from parents and other adults: her move toward independence comes to an end.

*Teenage pregnancy tasks*:

I am pregnant: the usual response is denial; postponement of medical care.

I am going to have a baby. Happy, cuddly baby is fantasized; baby is not seen as a growing child.

I am going to be a parent. The most difficult task. She has very little life experience to help her toward this reality. She is still growing up herself.



*Teenage parenthood tasks:*

Reconcile actual child with fantasy child.

Establish the newborn as a being separate from herself.

Needs to become adept in the care of the infant.

Establish a place for the neonate within the family group.

The teenager has many of these needs for herself, and needs more help than she really wants from other adults, including her parents.

29. *Oral contraceptives*: Ease of administration and use at a time separate from intercourse are advantages; some women have had untoward symptoms from the drugs, and some have forgotten to take them. Multiple births may be an advantage or disadvantage, depending on the individual.

*Vaginal diaphragm*: Used with a spermocidal jelly. A disadvantage is that it requires fitting by a physician, and the patient must learn how to insert and remove it. It is a tried and true measure if it is not left in the dresser drawer.

*Rhythm*: Temporary abstinence, during ovulation. Advantages: acceptance by certain religions. Disadvantages: most female cycles vary; a year may be required to establish normal "safe" period for an individual woman; may require basal body temperature charts.

*Condom*: Readily available without prescription; simple to use. A disadvantage is the reduction of sensation during intercourse for both partners.

*IUD*: Once inserted (read about the hazards and complications) no contraceptive thought is needed before intercourse and it can be used for several years. The disadvantages include cost, side effects, and a self-examination, which is objectionable to some women.

*Spermicidal preparation* (foam, cream, jelly, vaginal suppository): Advantages: readily available; no prescription needed; local effect; and relatively inexpensive. Disadvantages: Messy, lose spontaneity; may not be used.

30. Mourning the loss of the "perfect baby."

Immediate diagnosis and management of the neonate.

Clinical evaluation and diagnosis of the causes of the infant's problem.

Preparation and planning for care.

Redefinition of their parental role in their society.

Family planning and genetic counseling.



## LEG VIII-C

1. Evaluate your performance. Identify your areas of weakness and practice until you are comfortable.
2. Give your list to another student who has agreed to check your list against your nursing actions as you prepare and care for a patient scheduled for both x-rays. Did you actually do everything on your list? Anything more? Were you satisfied with your performance?
3. No red meat can be ingested the evening before a stool specimen is collected for occult blood analysis. Do you know why? Explain this to your patient. Stool for parasite analysis must be sent warm and immediately to the lab. Routine specimen can be sent by regular delivery.
4. (a) 5,7; (b) 8,7; (c) 5; (d) 10,2,1,13; (e) 14; (f) 11,12; (g) 15; (h) 10,6; (i) 9; (j) 4; (k) 3; (l) 1,2.
5. Share your nursing care plan in postconference.
6. (a) Administration of more than a maintenance amount of nutrients by way of a central vein (superior vena cava). This is sometimes called total parenteral nutrition (TPN).  
 (b) The solution contains a mixture of hypertonic dextrose, amino acids, vitamins, minerals, and electrolytes.  
 (c) Assess baseline vital signs and body weight in order to assess changes. Maintain careful intake and output records including observing for dehydration and edema. Regular schedule of oral hygiene.  
 S & A q6h.

7.

<i>Classification</i>	<i>Generic or Trade Name</i>	<i>Route</i>	<i>Action/Use</i>	<i>Untoward Effect</i>	<i>Nursing Implications</i>
Analgesic	Demerol (meperidine) papaverine	I.M P.O	relief of pain/post- operative	dry mouth headache nausea vomiting	Assess for ↓ resp, dizziness, seda- tion
	Pro-Banthine atropine	P.O. S.c.	relaxes smooth muscles, biliary and renal colic, pylorospasm	dry mouth blurred vision urinary retention	Use candy, gum to relieve dry mouth

<i>Classification</i>	<i>Generic or Trade Name</i>	<i>Route</i>	<i>Action/Use</i>	<i>Untoward Effect</i>	<i>Nursing Implications</i>
Antipruritic	calamine	Topical	relieves itching jaundice/cirrhosis		Assess safety of activities
	Benadryl	P.O.		drowsiness	
Anti-inflammatory	cortisone	I.M.	ulcerative colitis arthritis asthma	edema hypokalemia	Assess for GI distress Daily wt; BP b.i.d.
	prednisone	P.O.			
Digestant	Decholin	P.O.	increases bile flow, hydro-choleretic	diarrhea	Assess nutritional status
	Zancho				
Antidiarrheic	Lomotil	P.O.	inhibits GI propulsion	nausea sedation	Assess for CNS depression, changes in stool
	Kaopectate		absorbent and demulcent	nontoxic	

8. *Amphojel*: Local coating action to relieve gastric irritation. Insoluble and is not absorbed; buffers gastric secretions.

*Morphine*: Acts on the CNS, both depressing and stimulating effects; promotes contraction of smooth muscles; therefore, it may increase discomfort from biliary colic without atropine.

*Atropine*: Decreases mobility, tone, and peristalsis; mildly antispasmodic on biliary tract. May be combined with morphine to relieve biliary and renal colic.

*Gelusil*: Action similar to that of Amphojel.

*Tagamet*: Inhibits gastric secretions.

*Belladonna*: Antispasmodic effect on hypermotility of smooth muscle similar to atropine; used for pylorospasm, spastic colon.

9. Share your teaching and discharge plan during preconference, then use it and evaluate your plan during postconference. Your plan should take into consideration the patient's needs for rest, diet, elimination, medications (antispasmodics, anti-infectives, sedatives), mental rest, and knowledge of the disease process.

10. Share your teaching plan with your instructor. It should include some of the following:  
*Celiac disease*: knowledge to allow planning gluten-free meals of adequate calories, content, iron supplements.

*Dumping syndrome*: regular, relaxed meals, rest after meals, decreased concentrated sugar intake.

*Lactase deficiency*: knowledge to allow meal planning to limit intake of lactose

11. (a), (b), (d) are correct. Decreased acidity and the reduction of emotional stress are important goals of nursing care. Patients are generally eager to discuss their problems with a nurse, and ventilation can reduce emotional stress. Other environmental stresses may need to be reduced. Complications of ulcers include hemorrhage and perforation. Obstruction only occurs when the ulcer is near the pyloric sphincter. Infection is not a complication.
12. Hepatitis A is caused by hepatitis virus A; it has a brief incubation period of 14–40 days, and is transmitted by body secretions such as fecal-oral route, or through contaminated water. Good handwashing techniques by nurses will prevent its spread in the hospital. Hepatitis B is caused by hepatitis virus B; it has a long incubation period of 43–160 days, and is present in the serum of affected patients. Patients need to be in strict isolation, and nursing staff must be aware that it can be passed by blood transfusion, blood products, inoculation equipment, and mother-to-infant transmission.
13. hepatitis B: (a), (b), (e), (f). hepatitis A: (a), (b), (c), (d), (e), (f), (g), (h). Because of the difficulty in making a differential diagnosis early, both diseases may require infection control measures; check your hospital policy.
14. Discuss your NCP in a postconference. Note similarities and differences on other student's care plans for different diagnoses.
15. (a) 4; (b) 6; (c) 1; (d) 2; (e) 3; (f) 5.
16. (a) 3,5; (b) 2,6; (c) 1,4.
17. (a) 2,3,4,6,9; (b) 4,5,7; (c) 4,5,8.
18. Evaluate your list with at least one other student.
19. Evaluate your procedure with your observer.  
Practice this until you are not only safe but at ease with all aspects of wound care.
20. *Change in bowel habits*: Explain that after a few weeks the patient will learn what foods he or she can eat, and that a B.M. once a day, with irrigation, will probably become a routine. Request a visit from a member of the Ostomy Club.  
*Change in body image*: Help the patient talk about these fears; keep the conversation open to help the patient go through the phases of grief.



*Loss of place in family or community; fear of malignancy:* Keep conversation open and turned toward these problems. The Ostomy Club member may help with this. Teach both patient and at least one family member about caring for a colostomy after surgery. Preoperative preparation is vitally important.

21. Evaluate your own performance according to the list or ask a student observer to assist you with the checklist. Remember that a patient who has had a colostomy of long standing and has had a repair of the stoma probably knows much more about irrigation and his or her own best methods than you do. Let the patient tell you how to do it. This will help you both. Ask for help if you are unsure about this procedure. At best, it is a traumatizing experience for a patient with a new colostomy. Your own fears and concerns may be visible to your patient!

# APPENDIX



# Health Problems

Use this as a quick reference for health problems for persons of all ages. This list indicates where each problem is first introduced in either an Objective or a Learning Experience.

## LEG VI-A Mental and Emotional Problems

anxiety  
body image, changes in  
conflict  
confusion  
crisis  
death  
depression  
dissociative disorders  
grief  
neuroses  
panic  
psychoneuroses  
psychophysiologic illness  
psychosomatic illness  
somatoform disorders  
stress  
suicide  
terminal illness

## LEG VI-B Adaptation and Homeostasis

diabetes mellitus  
diabetic coma  
HHNK  
hyperglycemia  
hypoglycemia  
ketoacidosis  
metabolic acidosis

## LEG VI-C Respiratory Problems

acidosis  
alkalosis  
asthma  
COPD  
cystic fibrosis  
emphysema  
hypercapnia  
hypoxemia

hypoxia  
influenza  
laryngotracheal bronchitis  
pleurisy  
pneumonia  
tuberculosis

## LEG VII-A Problems Related to Surgery

Atelectasis  
body image, changes in  
D&C  
herniorraphy  
hysterectomy  
pulmonary embolism  
shock  
thrombophlebitis  
tonsillectomy  
transurethral resection (TUR)

## LEG VII-B Fluids and Electrolytes

### Acid-base imbalances

acidosis  
diabetic  
metabolic  
respiratory  
alkalosis  
metabolic  
respiratory

dehydration  
diarrhea  
electrolyte imbalances  
hypernatremia  
hyponatremia  
hypokalemia  
hypomagnesemia  
fever  
gastroenteritis  
GI bleeding

hiatus hernia  
impaction  
infection  
intestinal obstruction  
nausea and vomiting  
LEG VII-C Cardiovascular Problems  
angina pectoris  
heart failure  
    left side  
    right side  
myocardial infarction  
rheumatic heart disease  
hypertension  
tetralogy of Fallot  
LEG VIII-A Problems to Labor and  
    Delivery  
normal labor and delivery  
normal newborn  
placental separation  
LEG VIII-B Problems Related to the  
    Postpartum Period  
normal postpartum  
postpartum depression  
normal newborn  
high-risk newborn

LEG VIII-C Gastrointestinal Problems  
celiac disease  
cholelithiasis  
cholecystitis  
Crohn's disease  
diverticulitis  
dumping syndrome  
gastroenteritis  
hemorrhoids  
hepatitis  
Hirschsprung's disease  
Ileus  
Intussusception  
jaundice  
lactase deficiency  
malabsorption  
pancreatitis  
peritonitis  
pyloric stenosis  
surgical procedures  
tumors  
ulcerative colitis  
ulcers  
volvulus



# Audiovisual Sources

The initials listed below are used to indicate the sources of audiovisuals.

A	Ames Company PO Box 70 Elkhart, IN 46515			Los Angeles, CA 90069-9990 800-334-7830
AB	Abbott Laboratories Audiovisual Services, D-383 North Chicago, IL 60064	CM		Concept Media PO Box 19542 Irvine, CA 92713
AHA	American Heart Association (Contact your local or state association)	CML		Griggs Film Library Claremont Foundation, Inc. PO Box 187 Claremont, CA 91711
AJN	American Journal of Nursing Educational Services Division 555 West 57th Street New York, NY 10019 800-223-2282	D		Durrin Films, Inc. 4926 Sedgwick St. NW Washington, DC 20016
ALA	American Lung Association 1740 Broadway New York, NY 10019 (For rental contact local chapter)	DG		Davis & Geck Film/Video Library 1430 Broadway, 9th Floor New York, NY 10018
B	Robert J. Brady Co. Bowie, MD 20715	EL		Norwich Eaton Pharmaceuticals, Inc. Audiovisual Librarian 17 Eaton Avenue Norwich, NY 13815
BAN	Bandera Enterprises, Inc. PO Box 1107 Studio City, CA 91604	F		Filmmakers Library, Inc. 133 E. 58th St., Suite 703A New York, NY 10022
BD	Bard-Parker Professional Services Department Rutherford, NJ 07070	FI		Films Incorporated 733 Green Bay Road Wilmette, IL 60091
BWA	Barlas/Walker Associates 15 Lacosta Drive Natick, MA 01760	FL		C. B. Fleet Co., Inc. PO Box 11349 Lynchburg, VA 24506
CF	Carousel Films & Video 241 E. 34th St., Room 304 New York, NY 10016	FR		Film Fair Communications PO Box 1728 10900 Ventura Blvd. Studio City, CA 91604
CFD	Campus Film Distributors Corp. 24 Depot Square Tuckahoe, NY 10707	G		Geigy Pharmaceuticals (See MTP to order films.)
CHF	Churchill Films 662 North Robertson Blvd.	GSA		General Services Administration National Archives and Records Service



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# Health Problems

Use this as a quick reference for health problems for persons of all ages. This list indicates where each problem is first introduced in either an Objective or a Learning Experience.

## LEG VI-A Mental and Emotional Problems

anxiety  
body image, changes in  
conflict  
confusion  
crisis  
death  
depression  
dissociative disorders  
grief  
neuroses  
panic  
psychoneuroses  
psychophysiologic illness  
psychosomatic illness  
somatoform disorders  
stress  
suicide  
terminal illness

## LEG VI-B Adaptation and Homeostasis

diabetes mellitus  
diabetic coma  
HHNK  
hyperglycemia  
hypoglycemia  
ketoacidosis  
metabolic acidosis

## LEG VI-C Respiratory Problems

acidosis  
alkalosis  
asthma  
COPD  
cystic fibrosis  
emphysema  
hypercapnia  
hypoxemia

hypoxia  
influenza  
laryngotracheal bronchitis  
pleurisy  
pneumonia  
tuberculosis

## LEG VII-A Problems Related to

### Surgery

Atelectasis  
body image, changes in  
D&C  
herniorraphy  
hysterectomy  
pulmonary embolism  
shock  
thrombophlebitis  
tonsillectomy  
transurethral resection (TUR)

## LEG VII-B Fluids and Electrolytes

### Acid-base imbalances

acidosis  
    diabetic  
    metabolic  
    respiratory  
alkalosis  
    metabolic  
    respiratory

dehydration  
diarrhea  
electrolyte imbalances  
    hypernatremia  
    hyponatremia  
    hypokalemia  
    hypomagnesemia

fever  
gastroenteritis  
GI bleeding

hiatus hernia

impaction

infection

intestinal obstruction

nausea and vomiting

#### LEG VII-C Cardiovascular Problems

angina pectoris

heart failure

left side

right side

myocardial infarction

rheumatic heart disease

hypertension

tetralogy of Fallot

#### LEG VIII-A Problems to Labor and

Delivery

normal labor and delivery

normal newborn

placental separation

#### LEG VIII-B Problems Related to the

Postpartum Period

normal postpartum

postpartum depression

normal newborn

high-risk newborn

#### LEG VIII-C Gastrointestinal Problems

celiac disease

cholelithiasis

cholecystitis

Crohn's disease

diverticulitis

dumping syndrome

gastroenteritis

hemorrhoids

hepatitis

Hirschsprung's disease

Ileus

Intussusception

jaundice

lactase deficiency

malabsorption

pancreatitis

peritonitis

pyloric stenosis

surgical procedures

tumors

ulcerative colitis

ulcers

volvulus



## Audiovisual Sources

The initials listed below are used to indicate the sources of audiovisuals.

A	Ames Company PO Box 70 Elkhart, IN 46515			Los Angeles, CA 90069-9990 800-334-7830
AB	Abbott Laboratories Audiovisual Services, D-383 North Chicago, IL 60064	CM		Concept Media PO Box 19542 Irvine, CA 92713
AHA	American Heart Association (Contact your local or state association)	CML		Griggs Film Library Claremont Foundation, Inc. PO Box 187 Claremont, CA 91711
AJN	American Journal of Nursing Educational Services Division 555 West 57th Street New York, NY 10019 800-223-2282	D		Durrin Films, Inc. 4926 Sedgwick St. NW Washington, DC 20016
ALA	American Lung Association 1740 Broadway New York, NY 10019 (For rental contact local chapter)	DG		Davis & Geck Film/Video Library 1430 Broadway, 9th Floor New York, NY 10018
B	Robert J. Brady Co. Bowie, MD 20715	EL		Norwich Eaton Pharmaceuticals, Inc. Audiovisual Librarian 17 Eaton Avenue Norwich, NY 13815
BAN	Bandera Enterprises, Inc. PO Box 1107 Studio City, CA 91604	F		Filmmakers Library, Inc. 133 E. 58th St., Suite 703A New York, NY 10022
BD	Bard-Parker Professional Services Department Rutherford, NJ 07070	FI		Films Incorporated 733 Green Bay Road Wilmette, IL 60091
BWA	Barlas/Walker Associates 15 Lacosta Drive Natick, MA 01760	FL		C. B. Fleet Co., Inc. PO Box 11349 Lynchburg, VA 24506
CF	Carousel Films & Video 241 E. 34th St., Room 304 New York, NY 10016	FR		Film Fair Communications PO Box 1728 10900 Ventura Blvd. Studio City, CA 91604
CFD	Campus Film Distributors Corp. 24 Depot Square Tuckahoe, NY 10707	G		Geigy Pharmaceuticals (See MTP to order films.)
CHF	Churchill Films 662 North Robertson Blvd.	GSA		General Services Administration National Archives and Records Service

	National Audiovisual Center Washington, DC 20409		627 Beaver Road Glenview, IL 60025
HES	Health Education Service PO Box 7126 Albany, NY 12224	MSD	Health Information Services Merck, Sharpe & Dohme West Point, PA 19486
HRM	Human Relations Media 175 Tompkins Ave Pleasantville, NY 10570	MSH	Montebellow Center Rehabilitation Medicine Dept. 2201 Argonne Drive Baltimore, MD 21218
IFB	International Film Bureau, Inc. College Film Center 332 South Michigan Ave Chicago, IL 60604	MTP	Modern Talking Picture Services 500 Park Street North St. Petersburg, FL 33709
IU	Indiana University Audiovisual Center Bloomington, IN 47405	N	Nurseco PO Box 145 Pacific Palisades, CA 90272
JHP	Jay Hathaway Production Service PO Box 5224 Sherman Oaks, CA 91423	NLN	National League for Nursing 10 Columbus Circle New York, NY 10019
LAN	Lansford Publishing Co., Inc. PO Box 8711 San Jose, CA 95155	NMSS	National Multiple Sclerosis Society 205 East 42nd Street New York, NY 10017
LI	Time-Life Multimedia Time Life Building Rockefeller Center New York, NY 10020	OMNI	OMNI Education PO Box 220 Somerville, NJ 08876
LLLI	LaLeche League International Marell Schmidt, Film Rental Dir. PO Box 1209 Franklin Park, IL 60131	PMF	Polymorph Films 118 South Street Boston, MA 02111
LP	J. B. Lippincott Dept. of Audiovisual Media East Washington Square Philadelphia, PA 19105 800-523-2945	PP	Parenting Pictures 121 NW Crystal St. Crystal River, FL 32629
M	Merrell-Dow Film Library 1269 Gest Street Cincinnati, OH 45203	PT	Prime Time School Television 212 W. Superior Chicago, IL 60610
MD	Medirec 3453 S 300 West Salt Lake City, UT 84115	PTA	ARCAP 4614 Fifth Ave. Pittsburgh, PA 15213
MH	McGraw-Hill Hightstown, NJ 08520	RS	Ross Laboratories Columbus, OH 43216
MJO	Photoview Instructional Aids 27935 Roble Alto Los Altos Hills, CA 94022	RT	Roundtable Films, Inc. 113 North San Vincente Blvd. Beverly Hills, CA 90211
MPC	Midwest Parentcraft Center	SD	Superintendent of Documents U.S. Government Printing Office Washington, DC 20402
		SKF	Smith, Kline & French

	Laboratories Medical Dept., Audiovisual Mgr. PO Box 7929 Philadelphia, PA 19101 800-223-2346		
SKI	Sister Kenny Institute Abbott Northwestern Hospital 800 E. 28th St. at Chicago Ave. Minneapolis, MN 55407	UMC	Audiovisual Library Services 3300 University Avenue SE Minneapolis, MN 55414 University of California Extension Media Center Berkeley, CA 94720
SQ	E. R. Squibb & Sons, Inc. PO Box 4000 Princeton, NJ 08540	UMH	Consultation/Education Section Box 603 Mayo University of Minnesota Hospitals and Clinics Minneapolis, MN 55455
SZ	Sandoz Pharmaceuticals Medical Film Department East Hanover, NJ 07936	UMTV	University of Michigan Media Resources Center 400 Fourth Street Ann Arbor, MI 48109
TLV	Time-Life Video 1230 Avenue of the Americas New York, NY 10020	USC	University of Southern California Film and Video Distribution Center School of Cinema—Television University Park — MC2212 Los Angeles, CA 90089-2212
TRDA	American Lung Association Dept. 190 1740 Broadway New York, NY 10019	USURG	United Division of Howmedica, Inc. PO Box 1970 Largo, FL 33540
UCLA	UCLA Instructional Media Library Powell Library 46 Los Angeles, CA 90024	UW	University of Washington Press PO Box 85569 Seattle, WA 98145
UIL	University of Illinois Film Center 1325 South Oak Street Champaign, IL 61820	WSU	Wayne State University DENT Project Room 15, Cohn Building Detroit, MI 48202
UJ	Upjohn Professional Film Library 7000 Portage Road Kalamazoo, MI 49001	Z	Zipporah Films, Inc. One Richdale Ave, Unit 4 Cambridge, MA 02140
UM	University of Minnesota		



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